



# Bridges



*Newsletter of Sri Ramachandra Institute of Higher Education and Research (DU)*

*November 2020*



## Bridges Committee



## From the Editor's Desk

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Cherished Readers,

It is so reassuring to note that the month of November seems to be flaunting important values for mankind – World Kindness Day (13<sup>th</sup> Nov.), International Day for Tolerance (16<sup>th</sup> Nov.), International Day for the Elimination of Violence against Women (25<sup>th</sup> Nov.) and Thanksgiving (fourth Thursday of November). While we contemplate the need to observe days on being kind and thankful, with human values dwindling, such observances at least bring positivity.

Kindness improves our quality of life in the workplace as well as in the community. Expressing kindness to others is just as rewarding as receiving it from someone else. Tolerance is not passive; rather it is recognizing that our diversity is strength. Gratitude is strongly and consistently associated with greater happiness. Gratitude helps people feel positive, relish good experiences, improve health, help dealing with adversity and build strong relationships.

This issue of *Bridges* highlights varied events to celebrate the World Occupational Therapy Month. The treatment modalities for progeria remain challenging but for the faint ray of hope spread by *Global News* with the new found drug named, 'Zokinvy'. When food or space gets sparse, competition can bring out the worst not only in humans but monarch caterpillars, notes *Believe it or Not*.

In line with the vibes of this month, let us vow to be more kind, tolerant and thankful to be receptive to the blessings of nature in abundance.

Stay safe... Stay connected...

Dr. C. R. Hemalatha  
Editor-in-Chief

## Professional Avenues – Vidya Sudha

Vidya Sudha is an early intervention center for the children with intellectual and developmental disabilities. It is a corporate social responsibility project of Sri Ramachandra Educational and Health Trust, committed to enhance the quality of life of children below the age of eight years with a wide range of difficulties like developmental delays, autism spectrum disabilities, cerebral palsy, multiple disabilities, ADD, ADHD, Down syndrome, learning disabilities and other cognitive difficulties.

Housed in a separate building, this 16 year old center has well-equipped classrooms and highly trained multi-disciplinary team including Montessori teachers, occupational therapists, physiotherapists, speech therapists, clinical psychologists, vision therapists, nutritionists, social workers, special educators and an adjunct medical team to provide high quality training with individual attention.

Six uniquely designed services such as infant stimulation program, early intervention program, vidya sudha intensive multidisciplinary program, pre-academic programs, parent training programs or choice based intervention program and Special Needs Activity Center for Kids (SNACK - summer camp), etc. are delivered through day-care. Parental training has been made an integral part in all the programs for continual support beyond the classroom.

For the welfare of the family the center also renders support services such as availing of free bus pass from public transport, recommending for national identity card and providing maintenance grant. The center renders support to the students from lower socioeconomic background through sponsorships and fundraising sales of special greeting cards, wall paintings and terracotta paintings made by these children.

Cover Photo Courtesy:

Ms. Sneha. S.,  
I yr. BDS



## Happenings



IQAC organized an online workshop on 'How to go through NAAC accreditation meritoriously by SRIHER?' on 05.11.2020.

Prof. Caven McLoughlin, Kent State University, USA, a Visiting Professor of SRIHER (DU) was the resource person. 636 participants including faculty members and staff attended.

In view of the Vigilance Awareness Week 2020, IQAC organized a webinar on the theme, 'Vigilant India: Prosperous India' on 18<sup>th</sup> Nov. for students to promote integrity, transparency and accountability in public life. The resource person was Dr. C. Sylendra Babu, DGP of Railways, Tamil Nadu. Around 1194 students and faculty members participated.



The Depts. of Medical Surgical Nursing and Endocrinology organized the World Diabetes Day & organized a webinar with the theme, 'The Nurse and Diabetes' on 12<sup>th</sup> Nov. The resource persons were Dr. Suresh K. Sharma, Principal, College of Nursing, AIMS, Rishikesh and Dr. Adlyne Reena Asirvatham, Assoc. Prof., Dept. of Endocrinology, SRIHER. 372 participants attended from various parts of India.



Mr. Daryll Cullinan, former South African batsman & Director – Coaching, High Performance Center launched the M. S. Dhoni - Center for Sports Sciences' High Performance Center at Sri Ramachandra Institute of Higher Education and Research on 5<sup>th</sup> Dec. The center is suited to serve as a center of excellence in cricket in association with the Dhoni Foundation.



Sri Ramachandra Faculty of Pharmacy celebrated the World Pharmacists Day 2020 on the theme, 'Transforming Global Health' on 7<sup>th</sup> Nov. Mr. Rajarathinam



Malliah, Managing Director, MMC Pharmaceuticals Ltd., Chennai delivered a lecture on 'Job Opportunities for Pharmacy Graduates'. English & Tamil extempore and short video competitions were conducted. Prizes were distributed for the winners. The judges were Ms. Megumipaul, MD, FocalEd, University Admission Support, Toshimo, Tokyo (English Extempore) and Dr. M. Thamizhmozhi, Registrar, Tamil Nadu Pharmacy Council (Tamil Extempore).



Dept. of Occupational Therapy (OT) in collaboration with the Tamil Nadu branch of All India Occupational Therapists' Association, celebrated World Occupational Therapy Month from 27<sup>th</sup> Oct. to 26<sup>th</sup> Nov. The activities included:

- An international webinar on 27<sup>th</sup> Oct. on the topic, 'SOAP Notes - Occupational Therapists' Perspective'. Dr. Senthil Vadivel, Lecturer at King Saud Bin Abdul - Aziz University for Health Sciences, Saudi Arabia was the resource person. 458 participants attended.
- A national webinar on 26<sup>th</sup> Nov. titled, 'The Importance of Hand Splints in Occupational Therapy'. The guest speakers were Dr. Shovan Saha, Assoc. Prof., Dept. of OT, Manipal College of Health Professions and Dr. T. Vinoth Kumar, MOT, Hand Rehab Care. The results of the national level inter-college competitions were announced. Dr. Anil Kumar Srivastava, President of All India Occupational Therapists' Association was the Chief Guest. Around 200 participated.
- A mentoring session by Dr. V. G. Bodhankar, Sr. Occupational Therapist for the 1<sup>st</sup> year students on the history of OT.
- Over 30 distinguished physicians of Sri Ramachandra Medical Centre spoke about Occupational Therapy. These videos were released on Youtube throughout this month.





## *Believe it or Not* *Monarch Caterpillars Wrestle Each Other*

When food and space get scarce, competition can bring out the worst in monarch caterpillars. In the laboratory, researchers watched as roaming caterpillars looking for a hard-to-find meal started head-butting and lunging at fellow caterpillars munching on a milkweed leaf. That aggressive behavior is apparently meant to disrupt the feeding insects and help the instigators score dinner, biologist and neuroscientist Alex Keene and colleagues report.



Keene usually studies fruit flies and cavefish, but he decided to adapt his laboratory to study monarchs after a chance observation. “My wife pointed out in the backyard that these two monarch caterpillars were fighting with each other,” says Keene, of Florida Atlantic University in Jupiter. “I went on YouTube, and there were videos of this behavior,” he says, but for monarchs, “it wasn't documented anywhere in the scientific literature.” Other types of caterpillars have shown similar aggressive behavior in other settings.

Going from a self-proclaimed “simple fly biologist” to monarch researcher, however, was a challenge. Not only did Hurricane Dorian in 2019 blow over the plants in the lab's monarch garden, but also finding pesticide-free milkweed plants that the caterpillars would eat was harder than expected. Once the researchers overcame these challenges, though, they were able to film caterpillars competing with one another when the researchers limited the amount of available food.

“With decreasing food availability, we find increased levels of aggression,” as well as a “loser response,” with the caterpillar that gets attacked often leaving the area, says Elizabeth Brown, a biologist who works in Keene's lab.

This kind of behavior does occur outside the lab, says Jaap de Roode, a biologist at Emory University in Atlanta who was not involved in the research. Competition can be tough, he adds, because monarch caterpillars are limited in their food options. The insects eat only milkweed, and are more or less stuck on the plant that they're born on until they bulk up, because crawling from plant to plant takes energy. If there isn't enough food from the one plant to feed several caterpillars, “they won't make it,” he says.

Making things more difficult, the caterpillars need a huge amount of food to transform into a butterfly. “From egg to chrysalis, they multiply their weight 3,000 times, and they do that in about two weeks,” de Roode says. That's like a person gaining the weight of two blue whales in two weeks.

“Monarchs are like eating machines,” Keene says. But “some were much more aggressive than others.” So the next step could be exploring whether or not the more aggressive caterpillars grow into aggressive butterflies, he says.

**Source:** Collie J, Granella O, Brown EB, Keene AC. *Aggression Is Induced by Resource Limitation in the Monarch Caterpillar.* *iScience* [Internet]. 2020 Nov; 101791. Available from: <https://linkinghub.elsevier.com/retrieve/pii/S2589004220309883>

### *Alumni Corner*



The alumni chapter of Sri Ramachandra Faculty of Pharmacy sponsored an Automatic Sanitary Napkin Vending Machine (VenNap) worth Rs. 19500. The machine was inaugurated by Dr. Latha Ravichandran, Assoc. Dean (Education) and Prof. Ciddi Veeresham, Principal, Sri Ramachandra Faculty of Pharmacy on 17<sup>th</sup> Nov.

### *Home Hints*

#### *Golden Rules of Stain-shifting*



- Treat stains as fast as possible. Act immediately by soaking in cold water. If cold water does not remove the stain, try using lukewarm water and soap.
- Never use hot water. This will permanently set the stain in the material.
- Treat from the wrong side of the fabric, so that the dirt need not be pushed right through it



## Global News

### First Drug to Treat the Rapid-Aging Disease Progeria

The U.S. Food and Drug Administration has approved a treatment that could give children with a rare genetic illness that causes premature aging more time to live.

Children with the disease, known as Hutchinson-Gilford progeria syndrome, or progeria for short, often die of heart failure, heart attack or stroke as teenagers. Most children with the disorder die before they reach age 15. The newly approved drug, called Zokinvy, is the first and only approved treatment for progeria and certain related syndromes, the FDA announced November 2020.

In clinical trials of 62 children receiving the drug, Zokinvy increased lifespan by about 3 months on an average during the first three years of treatment, compared with another 81 kids who did not take the drug from a separate study that collected their health data. Following children who continued to receive Zokinvy for up to 11 years showed that, on average, kids' life spans were lengthened by about 2.5 years.

"This is not a cure," cautions Monica Kleinman, a pediatric critical care doctor at Boston Children's Hospital who was involved with the clinical trials. "We've hopefully extended the lifespan that [the children] have by slowing the pace of the disease," but, she says, the drug doesn't give kids a normal length of life.

An estimated 350 to 400 kids across the world have progeria. For these children, a single mutation in their genetic code upends their health. That mutation interferes with the gene responsible for making the protein lamin A, which helps hold cells' nuclei together. Children with progeria end up with higher amounts of a defective protein called progerin, which is similar to lamin A but with an extra piece attached. This protein gets stuck in cells' membranes and cannot be recycled for fresh proteins, causing the cells to prematurely age and making blood vessels and connective tissue stiffer, Kleinman says.

Everyone makes some progerin, and the body makes more as it gets older, Kleinman explains, but "children with progeria make a huge amount." Children typically appear normal at birth, but start to show signs of the illness in their first two years of life.

Zokinvy, made by the company Eiger BioPharmaceuticals of Palo Alto, California, blocks some of that progerin production, lowering the amount that accumulates in kids' cells. But the oral drug, taken as capsules, does not fully block production, she says, and the amount that patients can receive is limited by the drug's side effects, which include vomiting, diarrhea and fatigue.

The drug is a "testament to the power of basic research," says Tom Misteli, a cell biologist at the National Cancer Institute in Bethesda, who was not involved with work on the drug. Zokinvy builds on decades of research on many aspects of the lamin A protein, including the "seemingly esoteric chemical modification" that forms progerin, he says.

"Nobody studying this protein or the modification could have expected it to become a drug target," Misteli adds. But once the disease-causing gene was identified, researchers zeroed in on the class of drugs that includes Zokinvy as potential treatment.

With the new drug approval, the focus is now to test additional drugs or therapeutics in combination with Zokinvy to help lengthen the lives of children with progeria even further, Misteli says. Researchers are also investigating gene therapy approaches, with the goal of fixing the mutation that causes the debilitating illness.

**Source:** FDA News Release. FDA approves first treatment for Hutchinson-Gilford progeria syndrome and some progeroid laminopathies. November 20, 2020.



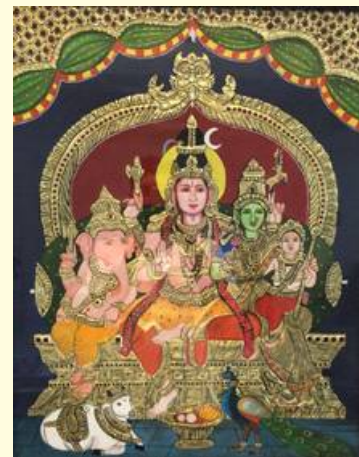
## Your Corner

### Amiable



Ms. Shristi Kushwaha , 2<sup>nd</sup> yr., MBBS

### Divine Descent



Mr. Rohan G., I yr., MBBS

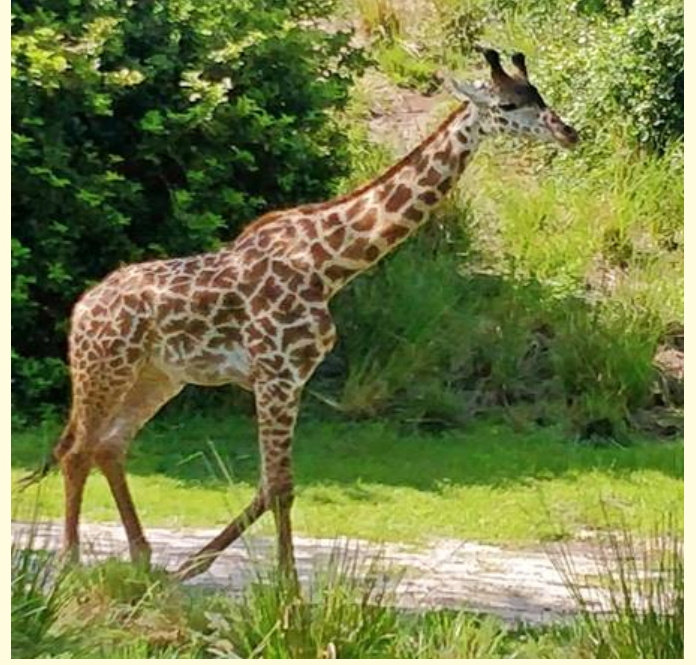


## Evanesce



Mr. N. Lokesh, III yr., B. Sc. Health Informatics

## Statuesque



Dr. Sheela Ravinder. S, Assoc. Prof., Dept. of Physiology

## Art of Giving

Everyone has something to give,  
Giving makes life happier to live.  
It need not always be fiscal,  
Kind words and support  
Can as well be beneficial.

Whatever - give it wholeheartedly  
Be it hope for the sick and the needy.  
Share wisdom that never fades;  
Lend your hand to someone,  
Who needs your aid.

Pleasant smiles, warm hugs and a little laughter,  
Spread positivity and improve human connectivity.  
We are privileged to offer - even after death,  
Let's donate organs to save someone's breath.

Give, to live forever in our fellow's memory.  
Donate organs and transform a laden life – lively.

Ms. J. K. Preethi, III yr. MBBS

(The 'National Organ Donation Day' is observed in India every year on 27<sup>th</sup> November. The day aims to promote awareness and recognize the selfless contribution made by deceased donors to healthcare and mankind to re-instill our faith in humanity).



## ஓங்கார வடிவினன்

ஒற்றைத் தந்தம்  
உடைத்து  
உலகின் உயர்நூல் மகாபாரதம்  
எழுதிய உலகின்  
முதல் எழுத்தன்

இராவணன் கவர்ந்து சென்ற  
கைலாச பகுதிமீட்டு  
கோககர்ண மலை செய்த  
குழந்தைச் சாமி

ஆடம்பர கோவில்களின்  
தெரு மூலையிலும்  
அரச மரத்தடியிலும்  
அருள்புரியும் அன்பாளன்

சிறுவாகனத்து  
சிறுநெலிக்கும்  
வலிக்கா வண்ணம்  
பயணிக்கும்  
எங்கள் தொப்பை கணபதி

Ms. S. Semmalar  
Senior Executive, MEU