



Bridges

...Connecting SRU



Newsletter of Sri Ramachandra University

January 2017



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From the Editor's Desk

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Beloved Readers,

As we are marching into another year, it is time to look back and be grateful for all the good times in the past year. Let us also fill our hearts with new hopes and reach out for new opportunities in the year ahead.

The fun filled *Pongal* celebration in the campus is a great opportunity to showcase our talents and enjoy the season as a family.

The rapid review programs conducted by various departments are a novel approach to increase professional knowledge and skills. They focus on the individual learning requirements, use interactive educational format and facilitate professional development.

A new book sharing platform organised by the Department of SLHS for children with special needs is a great initiative. It helps to build a community of passionate and generous book lovers besides touching lives and changing their world for the better.

Let us stay connected...

Sheela Ravinder. S.
Editor-in-Chief

Letters to the Editor

Dear Editor,

I enjoy reading our monthly newsletter – *Bridges*. The *Happenings* in the campus are presented in a nice and concise way. The spirit of togetherness is definitely kindled within us. There are many amazing articles to read which makes every issue special.

My hearty congratulations to the *Bridges* team for bringing out such a nice magazine, inspiring readers more and more. The e-version is very convenient and will have a tremendous reach for sure.

Dr. M. Haripriya
Assoc. Professor
Dept. of Anatomy

Memories



Dept. of Physiology organized a CME program on 'Autonomic Nervous System in Health & Diseases' on 4th August 2004. The speaker was Prof. K. K. Deepak, Dept. of Physiology, AIIMS, New Delhi.

Cover Photo Courtesy:

Mr. Anand Kumar A.
Senior Photographer, SRU



Dept. of Clinical Nutrition celebrated **Dietetics Day** on 10th Jan. with the theme, 'Meet your Dietitian and get Food-educated'



The events included:

- Food mapping & drawing competition on 'Healthy Eating'
- Sale of nutritious snacks by II yr., B.Sc. Clinical Nutrition students
- Awareness campaign at G block – 100 beneficiaries
- Photo frame - get yourself photographed

Dept. of Orthodontics conducted the 2nd Rapid Review Program - **Ramachandra Orthodontic Accelerated Review (ROAR) 2017** from 5th to 7th Jan. Around 150 students from more than 20



dental colleges from Chennai and other parts of South India participated. Apart from lectures, E poster competition and 'Quizzical-the Orthodontic Quiz' were also conducted for the PGs.



Dept. of Clinical Nutrition conducted a session on **Athma, Prana and Chakras** by Ms. Indira Ramamoorthy, Senior International Pranik Healing Trainer, GMCKS Pranik Healing

Center, Chennai on 2nd Jan. 100 participants benefited.

Dept. of SLHS inaugurated **'Padikalam, Share Panalam'** project funded by the Indian Speech and Hearing Association (ISHA) during the Speech and Hearing Awareness Week with the theme, 'Linking Play, Language and Literacy – Facilitating Communication through Book Reading and Sharing' on 14th Dec. Books were distributed to children with special needs. 120 students and faculty members participated.



Dept. of Pathology conducted the 3rd Sri Ramachandra Pathology Annual Rapid Review Course - **SPARRC 2017** for PGs from 6th to 12th Jan. The program included interactive discussions with glass slides and pathological specimens. SPARRC Postgraduate Handbook for Pathology was released. 270 delegates participated from all over the country.



Faculty of Nursing organized the **13th International Nurses Conference** on 4th & 5th Jan. Dr. J. Balachander, Medical Superintendent, JIPMER, Puducherry was the chief guest. 387 delegates participated of which 26 were from UWO, USA.



Dept. of Physiology conducted **SYMMEDCON 2017**, an international conference on 'Stress, Yoga & Mind-Body Medicine' from 2nd to 3rd Jan. Dr. B. N. Gangadhar, Director, NIMHANS was the chief guest. Dr. J. Radhakrishnan, Principal Secretary, Dept. of Health & Family Welfare was the guest of honor. Prof. Venkat Srinivasan, Internal Medicine, San Antonio, USA was the key resource faculty. 220 delegates participated. Three post conference workshops were conducted on 4th Jan. 120 delegates attended.

Dept. of Pediatrics - Division of Pediatric Endocrinology organized **Growth Module for Postgraduates** on 26th Nov.



The events included:

- A lecture on 'Idiopathic Short Stature' by Dr. Shruti Chandrasekaran, Endocrinologist, Global Hospital
- Small group discussion on practical aspects of growth disorders. Around 40 PGs attended.

Dept. of SLHS in collaboration with Nizhal Foundation, Chennai campaigned towards creation of **Asoka Vanam** – a fund raising initiative for planting Asoka trees, which is at high risk of endangerment in the wild as per the IUCN Red List of Threatened Species. 12 Asoka trees were planted at the Kotturpuram Tree Park during Oct. 2016.

Date	Event	Department/Faculty
03.01.'17	CME on 'Geriatric Care'. Guest lecture on 'Geriatric Population and Primary Healthcare Physicians' by Dr. Neela K. Patel, Chief, Division of Geriatrics & Palliative Care, Dept. of Family & Community Medicine, UTHSCSA, USA	Community Medicine & Geriatric Care Clinic
15.12.'16 to 17.12.'16	28 th National Conference of Indian Academy of Oral Medicine and Radiology held at Kanyakumari • Dr. Nanthini K. C., III yr., PG won the best paper award	Oral Medicine & Radiology
17.12.'16 to 18.12.'16	International College of Dentists Conference and Convocation 2016 held at Hyatt Regency, Chennai CRI • Ms. Bhavyaa R. – Best paper award • Ms. Ashrita M. C. V. – 2 nd Best paper award • Ms. M. Keerthana, Ms. R. Sindhuja & Ms. Adeline Genivie – 1 st place in poster presentation • Ms. K. Sadia Ada & Ms. K. Tejasri – 1 st place in poster presentation • Mr. R. Danush Kumar, Ms. P. Gajapriya, Ms. S. Sruthi & Ms. J. Deepthi – 1 st place in poster presentation • Mr. Shankar Kumar & Ms. Shravanthi – 2 nd place in poster presentation	Dental Sciences
01.12.'16 to 04.12.'16	44 th Indian Prosthodontic Society Conference held at Navi Mumbai Dr. Aashique Ali S. & Dr. Anisha Sharon Jacob, I yr., PGs won the first prize for Table Clinic presentation	Prosthodontics and Crown & Bridge
26.10.'16 to 28.10.'16	10 th World Cleft Lip, Palate & Craniofacial Congress held at Hyatt Regency, Chennai • Mr. R. Balakiran, III yr., BDS won the best paper award	Dental Sciences
25.11.16.	6 th UG Poster Convention at Sree Balaji Dental College, Chennai III BDS • Ms. Sai Vaishnavi & Ms. Jonua Fernandez – 1 st place in poster presentation • Ms. Hari Priya & Ms. Suganya G. – 1 st place in poster presentation IV BDS • Mr. Basim & Mr. Shrenik A. Jain – 1 st place in poster presentation • Ms. Mirunalini Dhananjayan & Ms. R. Rangeela – 3 rd place in poster presentation CRI • Ms. Kamalam V. & Ms. Rafia Shahanaz – 1 st place in poster presentation	Dental Sciences

Sports

- Dept. of Physical Education along with the Sports Development Authority of Tamil Nadu conducted the Tamil Nadu State Inter University Athletic Meet 2016-17 on 3rd & 4th Jan. at Jawaharlal Nehru Stadium, Chennai. Around 250 athletes from 22 universities participated. Thiru. Renjith Maheshwary, International Triple Jumper was the guest of honor.
- Our university staff & faculty teams participated in JBAS Inter Collegiate Staff Tournament 2016 - 17 conducted by JBAS College for Women, Chennai on 6th & 7th Jan.

Men Team

Events	Place	Name of the Players	Department/ Faculty	
Chess	Winners	Mr. K. Janarthanan	Telephone Exchange	
Carrom	Winners	Mr. Alexander S. Mr. Senthil Murugan B.	Blood Bank	
Volley ball	Winners	Dr. A. Solomon Raja	Physical Education	
		Mr. R. Immanuel Jebaraj		
		Mr. G. Sugendran		
		Mr. M. Sabarinathan		
		Mr. S. Kumar		
		Mr. E. Vasanth Kumar		Nursing Service
		Mr. Rambo Gowtham R.		
		Mr. Ebin Baby		
		Mr. Yuges S.		
		Mr. Y. Sofian		
		Mr. G. Siva	ETCT	
		Mr. I. Vijay Johnson	Fire & Safety	

Women Team

Events	Place	Name of the Players	Department/ Faculty
Chess	Winners	Dr. E. Suruthi	Dental Sciences
Table Tennis	Winners	Dr. A. Rupa	Dental Sciences
Throw ball	Winners	Dr. Latha Nirmal	Dental Sciences
		Dr. K. Rajeshwari	
		Dr. E. Suruthi	
		Ms. S. Senthamizh Selvi	Physical Education
		Ms. D. Reshma	E4 Ward
		Ms. N. Yogalakshimi	CTOT
		Ms. S. Archana	



Reach Out



NSS Awareness Special Camp on **Cashless Economy and Various Modes of Payments** was held from 7th to 12th Jan. in SRU Campus, Porur and Iyyapanthangal. 70 NSS volunteers participated.



Global News

Fuel from sewage is the future



It may sound like science fiction but wastewater treatment plants across the world may one day turn ordinary sewage into biocrude oil. Scientists at the Department of Energy's Pacific Northwest National Laboratory (PNNL) use the technology called hydrothermal liquefaction (HTL) to mimic the geological conditions earth uses to create crude oil, using high pressure and temperature to achieve in minutes something that takes Mother Nature millions of years. The resulting material is similar to petroleum pumped out of the ground, with a small amount of water and oxygen mixed in. This biocrude can then be refined using conventional petroleum refining operations.

Wastewater treatment plants across the U.S. alone treat approximately 34 billion gallons of sewage every day which may produce the equivalent of up to approximately 30 million barrels of oil per year. PNNL estimates that a single person could generate two to three gallons of biocrude per year. Sewage, or more specifically sewage sludge, has long been viewed as a poor ingredient for producing biofuel because it is too wet. The approach being studied by PNNL eliminates the need for drying required in a majority of current thermal technologies which historically has made wastewater to fuel conversion, too energy-intensive and expensive. HTL may also be used to make fuel from other types of wet organic feedstock such as agricultural waste.

Using HTL, organic matter such as human waste can be broken down to simpler chemical compounds. The material is subjected to a pressure of 3,000 pounds per square inch -- nearly one hundred times that of a car tire. The pressurized sludge then goes into a reactor system operating at about 660°F. The heat and pressure cause the cells of the waste material to break down into different fractions -- biocrude and an aqueous liquid phase.

"There is plenty of carbon in municipal waste water sludge and interestingly, there are also fats," said Corinne Drennan, who is responsible for Bioenergy Technologies Research at PNNL. "The fats or lipids appear to facilitate the conversion of other materials in the wastewater such as toilet paper, which keep the sludge moving through the reactor, and produce a very high quality biocrude that, when refined, yields fuels such as gasoline, diesel and jet fuels."

"The best thing about this process is how simple it is," said Drennan. "The reactor is literally a hot, pressurized tube. We've really accelerated hydrothermal conversion technology over the last six years to create a continuous and scalable process which allows the use of wet wastes like sewage sludge." An independent assessment for the Water Environment & Reuse Foundation (WE & RF) calls HTL a highly disruptive technology that has potential for treating wastewater solids. WE & RF investigators noted that the process has high carbon conversion efficiency with nearly 60 percent of available carbon in the primary sludge becoming biocrude. However, the report calls for further demonstration.

PNNL has licensed its HTL technology to Utah-based Genifuel Corporation, which is now working with Metro Vancouver, a partnership of 23 local authorities in British Columbia, Canada to build a demonstration plant. Vancouver hopes to be the first wastewater treatment utility in North America to host hydrothermal liquefaction at one of its treatment plants. The pilot project will cost between \$8 to \$9 million (Canadian).

In addition to the biocrude, the liquid phase can be treated with a catalyst to create other fuels and chemical products. A small amount of solid material is also generated, which contains important nutrients. For example, early efforts have demonstrated the ability to recover phosphorus, which can replace phosphorus ore used in fertilizer production.

Source: <https://www.pnnl.gov>

Health Glance

Infant Care



Handling the Baby

- Wash hands (or use a hand sanitizer) before handling the baby
- Support the baby's head and neck when carrying till 5 - 6 months of age
- Do not shake the newborn child, jiggle on the knee or throw in the air – it can cause bleeding in the brain and even death
- Keep noise and light levels low to moderate
- Swaddle babies upto 2 months of age to keep them warm and comfortable

Bonding and Parent-Child Communication

- Cradle the baby in the arms, stroke & use 'skin-to-skin contact'. Also talking and singing are good ways to stimulate and bond with the infant
- Spend time playing and interacting with the baby

Diapering

- Use disposable diapers with caution when the environment is hot and humid
- Use wet cotton balls and/or wipes to gently wipe the area clean from front to back to avoid urinary tract infection
- Wash hands thoroughly after changing a diaper
- Wash cloth diapers in dye-and fragrance-free detergents
- Let the baby go un-diapered for part of the day

Umbilical Cord Care

- Keep the stump clean and dry
- Consult your doctor if the navel area becomes red or if a discharge develops

Feeding and Burping

- Breast feed the baby for the first six months
- Do not start feeding an infant formula by bottle
- Feed a newborn baby every 2 to 3 hours
- Burp the baby after each feed as they often swallow air during feeds

Complementary Feeding

- Remember that breast milk still remains the major diet for babies from 6 months to one year
- Start semisolid foods such as porridge, hand mashed idli, rice-dal, mashed banana and cooked vegetables between 6 to 8 months, 2 - 3 times a day
- By 9 months, start on with soft solids and encourage the baby to chew
- Introduce different tastes and textures before one year

Sleeping

- Wake up babies if they have not been fed for 4 hours till 3 months of age
- Help the baby develop a sleep cycle by keeping the stimulation and lighting to a minimum

Immunization and well baby visits

- Understand the immunization schedule and ensure that the baby gets all the recommended vaccines on time
- Visit the doctor to assess the baby's growth and development

Injury Prevention

- Cover the sharp edges on furniture with corner protectors
- Avoid furniture that children can climb upon
- Use protective covers for the electric sockets on the wall
- Fix the position of opened doors with door stoppers or magnets to avoid injury
- Do not use glass table tops at home
- Do not carry your baby to the kitchen
- Store all sharp utensils, medicines, chemicals, cleaning liquids and inflammable substances away from the child's reach
- Always keep the bathroom door closed and never leave buckets filled with water around
- Never leave the baby alone on a sofa or bed without side railings
- Equip yourself with first-aid skills and kits

Courtesy: Department of Pediatric Medicine

Soul to Soul

Himalayan journeys: Meta-dialogue – 5

Participants in this dialogue:

Peter Matthiessen (PM)

James Hilton (JH) (1900-1954): British writer and author. He achieved fame from his books *Goodbye Mr. Chips* and *Lost Horizon* both written in the 1930s. In *Lost Horizon* he describes an idyllic valley in the remote ranges of the Himalayas for which he gave the name Shangri-La. *Lost Horizon* was made into a highly successful Hollywood film in 1937.

PM: *Lost Horizon* is a great novel. I was taken up by the complex twists and turns in the story and, as you can imagine, became curious to find out what made you come up with a plot like that in the first place. I had a hard time trying to figure out fact from fiction in the novel.

JH: Oh, did you? I thought the *Prologue* would have given you a good enough lead. *Lost Horizon* is a work of fiction really, with some amount of fantasy thrown in.

PM: I would agree with the fantasy part. In fact, I kept reading and re-reading the *Prologue* and *Epilogue* lots of times. In the midst of all the convoluted details, I realized you have developed a time-honored legend into a highly readable storyline ... I was going to say 'believable.'

JH: Well, you see, there was this legend of a cone-shaped mountain* up in the Himalayas with all kinds of stories connected with it. I wanted to explore the legend and bring it as close to our perception as possible – the distant land, its people, their unusual customs, beliefs and so on. In your case, I know one of the reasons for your journey was the excitement to see the legendary snow leopard. You know what, people make mistakes in life through believing too much Peter, but they have a damned dull time if they believe too little.

PM: You may be right, but you sound kind of distant you know, almost aloof when you say that.

JH: Now listen ... distant or not, don't you think the journey that I took you over the tallest ranges of the Himalayas with their chill gleam and their very namelessness that somehow added to their dignity ... don't you think it was worth all the drama of hijacking, crash-landing and all the rest of it in the story?

PM: I suppose so. In my case it was my zoologist friend George Schaller who kept nudging me to take the trip to the Crystal Mountain. We kept learning all the names as we went trekking; west under Annapurna, north along the Kali Gandaki River, then west and north again, around the Dhaulagiri peaks and across the Kanjiroba, two hundred and fifty miles or more to the 'hidden Land of Dolpo' on the Tibetan Plateau, not far from your fictitious monastery I suppose. Well, mind you this was more than forty years after you conjured up your adventure story ... and became famous christening the land *Shangri-La*.

JH: Oh yes, Shangri-La ... the idyllic land of goodness and wisdom, touched with the mystery that lies at the core of all loveliness. Of course, you will not find it marked on any map.

*(Author's note) There has been significant new understanding on the reasons for the forms and shapes of mountains – geological and tectonic – and their ecological significance. The research article by Paul Elsen and Morgan Tingley in *Nature Climate Change* in May 2015 gives a detailed account of the topography of mountains and their classification based on four distinct area-elevation patterns. Accordingly the Himalayan ranges fit into the 'hourglass' pattern (rather than cone-shaped) where they slope deeply upwards, before flattening out into broad, high plains.

Prof. S. Rangaswami,
Professor of Eminence in Medical Education, SRU.
(will be continued...)



Believe it or Not

New Polymer Patch Can Repair Heart Damage



Scientists have developed a polymer patch to enhance electrical conductivity in hearts. This patch is envisaged to be used in patients who had suffered heart attacks. Since, electrical conductivity is compromised in these patients, the polymer patch comprising of 3 components, namely chitosan, a polysaccharaide, commonly used as food additive is layered onto polyaniline, which is a conducting polymer. The polyaniline is attached to the chitosan by using a plant adhesive, phytic acid. A major advantage of this polymer patch is that it can be attached onto the diseased heart without sutures and will continue to enhance electrical conductivity for more than 2 weeks, longer than the conventional conducting polymers, which lasts only for few days. At present this polymer patch has been tested on rats and was found to be very beneficial.

Source: Mavad, Damia, Catherine Mansfield, Antonio Lauto, Filippo Perbellini, Geoffrey W. Nelson, Joanne Tonkin, Sean O. Bello et al. "A conducting polymer with enhanced electronic stability applied in cardiac models." Science Advances 2, No. 11 (2016): e1601007.



Your Corner

Sand from the Shore

Sand from the same distant river shore,
Flew with the winds to fall into places far apart,
One was moulded by the sculptor's hands,
The other landed in the fakir's wobbly cart.

Years later, it still recognizes the other one's touch,
Laden with memories of a hundred eons and more,
Swirling and dancing across the corridors of time,
It's still the sand from the same distant river shore.

Dr. Akshay Singh, II yr., M.D. Psychiatry

Alumni Corner

Events and Achievement

- Dr. Sharanya Paranthaman (Alumni, MBA 2008-09) was recognized for Outstanding Research and Presentation at the International Conference for Academic Disciplines held at the University of London, UK between 8th & 11th Nov. 2016.
- Dr. Anila Anna Mathew (Alumni, MD Pathology 2002-03), Director, Renopath Center for Renal & Urological Pvt. Ltd., Chennai was invited as a guest speaker for SPARRC 2017 conducted by the Dept. of Pathology, SRU.
- Dr. Ilanchezian Subramanyam (Alumni, MD Radiology 2010-11), Asst. Prof., SRU was awarded the European Diploma in Radiology by the European Board of Radiology on 12th Dec. 2016.



Colors

Sanguine



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



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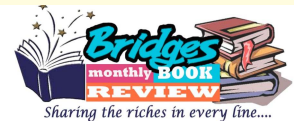
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Ms. V. Sujatha
Reader, Faculty of Nursing

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Dr. Archana P. Kumar
Assoc. Prof., Dept. of Physiology



The 71st Bridges Monthly Book Review was held on 12.01.'17

Book : *Something Happened on the Way to Heaven*

Author : Ms. Sudha Murthy

Reviewed by : Ms. M. Krupa, Senior Lecturer, Dept. of SLHS

Forthcoming Bridges Monthly Book Review

Feb. 2017: *Gods, Kings & Slaves* by R. Venkatesh

Reviewer: Mr. Abhinand P.A., Research Scholar, Dept. of Bioinformatics