Beloved Readers,

The New Year brings new hopes into our lives and we commit to resolutions to change our lives for the better. We need to challenge ourselves and make real changes without limiting ourselves. Napolean Hill has quoted, “What the mind can conceive and believe, it can achieve.” Let us believe that our goals are achievable and make them happen.

The promise of stem cells that they can develop into different cell types may offer a renewable source of replacement cells to treat diseases, conditions and disabilities. ‘Did you know’ divulges about the Center for Regenerative Medicine and Stem Cell Therapy at SRU which has been started with the aim of bridging basic research with clinical regenerative procedures.

‘Believe it or Not’ says, it rains diamonds on Saturn and Jupiter. If those planets can be treasure troves of diamonds, we can mark the earth as a treasure of nature by preserving the ecosystem.

Let us stay connected…

Sheela Ravinder. S.
Editor-in-Chief

---

**Greetings**

Prof. N. Venkatesh  
Course Chairman,  
Faculty of Physiotherapy  

Mr. R. Sivakumar  
Principal,  
Faculty of Physiotherapy  

Mr. Antony Leo Aseer P.  
Vice-Principal,  
Faculty of Physiotherapy  

---

**Memories**

The first satellite center of Sri Ramachandra Dental College was inaugurated in Feb. 2000 by Dr. J. Radhakrishnan, IAS, Chennai at Ram Colony, Ashok Nagar (Zone 8, Corporation of Chennai). Services are being rendered by the Dept. of Public Health Dentistry.
**Happenings**

**Pediatric Urology Live Operative Workshop** was held on 20th Dec. Laparoscopic and novel endoscopic treatments for vesico ureteric reflux were demonstrated. Around 200 surgeons and trainees from all over India participated. An initiative called Pediatric Urology Ramachandra Education (PURE) has been set up to conduct periodic academic activities.

**Christmas celebrations** at SRU on 20th Dec.

His Excellency Tun Pehin Sri Haji Abdul Taib Mahmud, Governor of Sarawak, Malaysia visited SRU along with senior ministers and academic heads as a 22 member delegation on 8th Dec. with a view to develop Bilateral Collaboration in the areas of teaching, healthcare and research.

**Dept. of Medical Oncology** organized the 3rd International Meeting of Clinical Practice Guidelines in Oncology - an Indian Perspective on 20th Dec. Around 600 National and International delegates participated.

Faculty of Pharmacy inaugurated a certificate course in Herbal Drug Technology on 10th Dec. Dr. M. M. Yousuf, CEO, Kammy Expo Links and Mr. Vijay Mehta, Managing Director, Retort Laboratories, Chennai were the guests of honor.

**Dept. of Medical Oncology** organized the 3rd International Meeting of Clinical Practice Guidelines in Oncology - an Indian Perspective on 20th Dec. Around 600 National and International delegates participated.

**Dept. of Physiology** conducted Ramachandra Postgraduate Teaching Skills Workshop – RaPTS on 28th & 29th Nov. Dr. Tripti K. Srivatsava, MCI Co-convenor was the invited speaker. 40 postgraduates participated.

**Dept. of SLHS** organized Antarprerna Series I - Seeking Inner Inspiration on 27th Nov. Dr. Kalyani Mandke, Senior Audiologist, Director, Mandke Hearing Services, Pune was the chief guest. Around 120 members attended.

**Dept. of Microbiology** conducted the Microbiology Annual Revision Course - MARC 2014 from 28th to 30th Nov. 56 postgraduates participated.

**Dept. of Microbiology-Mycology Division** conducted the 7th Annual Workshop on Basic and Molecular Diagnostics in Mycology from 21st to 25th Nov. 35 participants from all over India participated.

The Biodosimetry Laboratory, Dept. of Human Genetics has been re-accredited by the Atomic Energy Regulatory Board (AERB), India for a period of three years.
Faculty of Management organized the following events:

- **Intensive Finishing School** program for MBA final year students from 15th to 19th Dec. 22 students participated.
- A debate on *Shakshib Bharat Shaksham Bharat - Quality Education for All* was conducted on 18th Dec. 16 students from different faculties participated.

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
<th>Department/Faculty</th>
</tr>
</thead>
<tbody>
<tr>
<td>27.12.'14</td>
<td>Ms. N. Vanitha Rani, Lecturer was awarded the best poster presentation at the National Seminar on 'Healthcare and Outcomes Research' organized by International Society for Pharmacoeconomics and Outcomes Research, India &amp; Raghavendra Institute of Pharmaceutical Education and Research held at Anantpur, AP</td>
<td>Pharmacy Practice</td>
</tr>
<tr>
<td>26.12.'14</td>
<td>Mr. V. Srinivasan, final year, MBBS presented an ICMR approved study report titled 'Analysis of Relationship between Cognitive Functions and Blood Indices across Parturition in Primigravidae' at the International Scientific Medical Conference held at UAE University, Abu Dhabi</td>
<td>Physiology</td>
</tr>
<tr>
<td>26.12.'14</td>
<td>II CNE on 'Emerging Diseases: Nursing Concern'</td>
<td>School of Nursing</td>
</tr>
<tr>
<td>26.12.'14</td>
<td>CME on 'Pharmacological Approach to Infant Nutrition' by Dr. Amal Raj, Sr. Consultant, Pediatrics, Chettinad Health City, Chennai</td>
<td>Pharmacology</td>
</tr>
<tr>
<td>20.12.'14</td>
<td>Ms. T. Kanimozhi, II yr., B. Pharm won the first place in Karutharangam at the 10th International Conference organized by All India Research Organization in association with Dept. of Journalism and Communication, Madras University</td>
<td>Pharmacy</td>
</tr>
<tr>
<td>19.12.'14</td>
<td>The following PGs have won prizes at the National Conference on 'Recent Trends in Physiotherapy' held at Sri Venkateswara Institute of Medical Sciences, Tirupati</td>
<td>Physiotherapy</td>
</tr>
<tr>
<td>20.12.'14</td>
<td>Paper Presentation - Ms. S. Jyothi, I yr., MPT (Ortho) - II Place</td>
<td>Pharmacognosy</td>
</tr>
<tr>
<td></td>
<td>Poster Presentation - Ms. Tharani G., I yr., MPT (Neuro) - II Place</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Quiz - II Place</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Ms. K. Asha, II yr., MPT (Ortho)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Ms. D. Bhuvaneswari, I yr., MPT (Ortho)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Ms. Ramya Ravikumar, I yr., MPT (Ortho)</td>
<td></td>
</tr>
<tr>
<td>18.12.'14</td>
<td>CPE on 'Targeting Cancer Stem Cells via Wnt/β-Catenin Antagonist, Secreted Frizzled Related Protein-4' by Prof. Arun Dharmarajan, Faculty of Health Sciences, Coordinator - South Asia Research Initiatives, School of Biomedical Sciences, Curtin Health Innovation Research Institute, Curtin University, Perth (WA), Australia</td>
<td></td>
</tr>
<tr>
<td>14.12.'14</td>
<td>Dr. S. Roopa, Assoc. Prof. won the prize for best Tamil poetry 'Vergalai Thaangum Vizhudhugal' conducted by Ezhi Ilakkaya Peravai, Chennai</td>
<td>Physiology</td>
</tr>
<tr>
<td>12.12.'14</td>
<td>XIII CNE on 'Ovarian Disorders: Nurses Concern'</td>
<td>OBGYN Nursing</td>
</tr>
<tr>
<td>06.12.'14</td>
<td>The following BDS students won awards at the 5th UG Poster Convention at Balaji Dental College, Bharath University, Chennai. E-Posters - 3rd place</td>
<td>Pedodontics and Preventive Dentistry</td>
</tr>
<tr>
<td></td>
<td>- Ms. G. Nithyashree &amp; Ms. G. Nagalakshmi, Final yr.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Ms. Rafia Shahanaz &amp; Ms. Bhavyaa R., III yr.</td>
<td></td>
</tr>
<tr>
<td>05.12.'14</td>
<td>Dr. K. Siddharth, II yr., MDS won the best paper award at the 29th IACDE and 22nd IES National Conference, Jaipur</td>
<td>Conservative Dentistry &amp; Endodontology</td>
</tr>
<tr>
<td>07.12.'14</td>
<td>CME on 'Hospital Preparedness to tackle Ebola' by Dr. Silpa B. Gadiraju, Director, Emergency Dept., Global Health Education, Baylor College of Medicine, Texas</td>
<td>Accident &amp; Emergency Medicine</td>
</tr>
<tr>
<td>02.12.'14</td>
<td>CME on 'Role of Oncogenes in Early Detection of Cancer'</td>
<td>General Medicine</td>
</tr>
<tr>
<td>28.11.'14</td>
<td>Prof. B. Rajagopalan, HOD delivered the Dr. C. V. Ramakrishnan Oration at Napcon 2014 held at Agra</td>
<td>Pulmonary Medicine</td>
</tr>
<tr>
<td>21.11.'14</td>
<td>XIII CNE on 'Reinforce Mental Health'</td>
<td>Psychiatric Nursing</td>
</tr>
</tbody>
</table>
The 18th Inter State South Zone Veterans Cricket Tournament was conducted at SRU from 26th to 28th Dec. This tournament was inaugurated by Mr. J. K. Mahendra, Vice President and Mr. Chandrasenan Nair, Joint Secretary, Board for Veterans Cricket, India. Shri. MJF Lion. K. P. Padmanaban, District Governor, Lions Club International was the Chief Guest and Mr. V. V. Kumar, Former Indian Cricketer was the Guest of Honor. The Shri. N. P. V. Ramasamy Udayar Trophy was won by Kerala Veterans Team.

Our faculty and staff won the Winner's Trophy in the inter collegiate staff cricket tournament conducted by S. S. N. College of Engineering, Chennai on 20th Dec. Dr. Abineya Venkatesh Kartik K., Medical Officer, was adjudged the Best Batsman of the Tournament and Dr. V. Chandraseker, Assoc. Prof., Dept. of Nephrology was the Man of the Match in the finals.

Kudos to the team

A team comprising of Dr. R. Suresh, HOD, Dept. of Periodontology, Mr. Rajasekaran S. & Mr. M. G. Dinesh, Ph.D scholars and Dr. Alan M. Punnoose, Asst. Prof., CRF have isolated, cultured and differentiated Human Gingival Mesenchymal Stem Cells.

New Projects Sanctioned

<table>
<thead>
<tr>
<th>Sl.No.</th>
<th>Title</th>
<th>Principal Investigator</th>
<th>Funding Agency</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>PAK-1 as a Therapeutic Target in Glioma</td>
<td>Dr. Ganesh Venkatraman Assoc. Prof., Dept. of Human Genetics</td>
<td>DBT</td>
</tr>
<tr>
<td>2.</td>
<td>Scientific Validation of a Siddha Formulation Iedi Vallathi (Mezhugho) for Arthritis and its underlying Mechanism</td>
<td>Prof. D. Chamundeeswari Principal, Faculty of Pharmacy</td>
<td>AYUSH</td>
</tr>
</tbody>
</table>

Global News

Do we have a GPS in our body?

How are we aware of where we are? Do we have a GPS in our body to commute? How do we manage to reach a familiar place faster than the new one?

The answer to the questions fetched the Nobel Prize for Physiology or Medicine in 2014 to John O'Keefe, May-Britt Moser and Edvard I. Moser for their discoveries of cells that represent a positioning system in the brain. John O'Keefe (1971) discovered the first component of this positioning system in the hippocampus of rats. O'Keefe referred to these cells as 'place cells' which represent the different regions as a map of a room. He demonstrated that these 'place cells' are not just registering visual input, but creating an inner map of the environment. Thus, hippocampus generates several maps, represented by the combined activity of place cells that get activated in multiple environments. Further, in 2005, May-Britt and Edvard Moser discovered another significant component of the brain's positioning system. They identified the nerve cells called 'grid cells' located in entorhinal cortex that creates a coordinating system and allows precise positioning and path finding. Jointly with other cells of the entorhinal cortex, circuits are formed with the place cells in the hippocampus. This circuitry represents a comprehensive positioning system called the 'inner GPS' in the brain. A combination of these two researches provides evidence for how 'place' and 'grid cells' facilitate in determining the position and navigation.

The sense of place and the ability to navigate based on previous experience and knowledge are essential and an integral part of daily living. This discovery has answered the questions of several philosophers, scientists and commoners on whether the brain has something similar to GPS fitted in, to position and move in a complex environment. Recent investigations provide evidence for the presence of 'place' and 'grid' cells in the brain imaging techniques and in patients undergoing neurosurgery. Further, these cells are affected in the early stages of Alzheimer's disease.

A free medical camp was conducted on 23rd Dec. at Karunakaracheri Panchayat in the Field Practice Demonstration Area (FPDA) of the Rural Health and Training Centre (RHTC), Vayalanallur which was organized by Dr. G. T. Thangarajan, Convenor, Out Reach Program, along with all the staff of RHTC, Vayalanallur and the Depts. of Community Health Nursing, General Medicine, General Surgery, Pediatrics, Obstetrics & Gynecology, Orthopedics, Ophthalmology, ENT, Head & Neck Surgery, Dermatology, Faculty of Dental Sciences & Central Laboratory. 232 beneficiaries were screened and medicines for three days were dispensed free of cost.

NSS campaign on Swachh Bharat Mission and Nirmal Bharat Abhiyaan was held on 18th Dec. at NSS adopted villages. Dr. S. Anandan, Dean, SRMC & RI, Ms. V. Sudha, Block Development Officer, Poonamallee and NSS volunteers along with 300 community people participated.

Interns and staff from the Dept. of Public Health Dentistry, Faculty of Dental Sciences participated in a Public Health Expo organized by IDA and Rotary Club at MGR Janaki College, Adyar on 9th Dec. Around 1000 special children were screened and powered toothbrushes were distributed. General public and school children also attended the expo which focused on oral health including ill effects of tobacco.

As part of International Day of People with Disability, the Public Awareness Committee of the Faculty of Dental Sciences conducted a screening camp for visually impaired at the National Institute for the Visually Handicapped - Regional Center, Poonamallee on 8th Dec. Pamphlets on oral hygiene instructions in Braille were distributed. Around 75 members benefited.

School of Nursing conducted an awareness program via a skit on 'Environmental Sanitation' on 16th Dec. at Mugalivakkam PHC and Thiruvanmiyur Urban Health Training Center.

Interns and staff from the Dept. of Public Health Dentistry, Faculty of Dental Sciences participated in a Public Health Expo organized by IDA and Rotary Club at MGR Janaki College, Adyar on 9th Dec. Around 1000 special children were screened and powered toothbrushes were distributed. General public and school children also attended the expo which focused on oral health including ill effects of tobacco.

Contact details: Central Research Facility
Ext.: 277

Did you know?

Centre for Regenerative Medicine and Stem Cell Therapy

The center has been started with the aim of bridging basic research with clinical regenerative procedures utilizing stem cells and scaffolds. The objective is to conduct multidisciplinary tissue engineering research with the goal of using the research products from this center, as potential therapy for regenerative medicine.

The multidisciplinary activities of the center include:
- culture of stem cells for research & therapy
- fabrication of nano-scaffolds & bioreactors for regeneration of various organ parts
- extramural funded research projects
- student training

Contact details: Central Research Facility
Ext.: 277
Soul to Soul

Let us see how life itself depends crucially on interactions with the vacuum. The evidence for this comes when we look at the nature of bonds between water molecules. Living organisms consist of 70% water. The properties of water that make life itself possible do not derive from the chemical composition of the H$_2$O molecules. The decisive processes involve the bonds between the hydrogen components of the H$_2$O molecules. These bonds have been found to be more than ten times weaker than conventional chemical bonds. This allows for stretching of the molecular bonds between the hydrogen atoms and their host oxygen atoms. What in effect happens from this flexibility is that every drop of water represents a constantly forming and re-forming mixture of molecular structures. This flexibility has been shown to be due to the interaction of the bonds with quantum-level vibrations in the zero-point field.

Matter, cosmos, life, consciousness or water molecule - as we continue our search deeper and deeper into the ultimate nature of reality, we realize that fastening the rational seatbelt alone does not make much sense. The confidence that the entire range of perceived reality can be explained purely in terms of mechanical processes “is a holdover from physical theories of an earlier era,” says Henry Stapp, Theoretical Physicist of University of California, Berkeley. The founders of quantum theory - of energy converting into matter and back again may be mentioned here. Tesla, the eccentric and flamboyant genius is known for his invention of countless electrical devices. His enquiring mind got him interested in advaita vedanta and samkhya philosophy and he started using Sanskrit words to describe matter, energy etc.

“…Long ago he (man) recognized that all perceptible matter comes from a primary substance, or tenuity beyond conception, filling all space, the Akasha or luminiferous ether, which is acted upon by the life-giving Prana or creative force, calling into existence, in never-ending cycles all things and phenomena.” Tesla is quoted from his unpublished 1907 article, Man's Greatest Achievement. “The primary substance, thrown into infinitesimal whirls of prodigious velocity, becomes gross matter; the force subsiding, the motion ceases and matter disappears, reverting to the primary substance.”

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

Believe it or Not

It Rains Diamonds on Saturn and Jupiter!

We have heard of the occasional acid raining down from the skies, but diamonds? That is definitely a first! Unfortunately, this miracle is not happening anywhere on earth but over 830 million miles (1.2 billion km) away, on Saturn and Jupiter.

At least that is what planetary scientists from NASA’s Jet Propulsion Lab in Southern California seem to think after conducting extensive research, the results of which were presented at the 45th annual meeting of the Division of Planetary Scientists that was held in Denver, Colorado from 6th to 11th Oct. 2013.

According to Dr. Kevin Baines, the lead researcher of the project, “over 1000 tons of diamonds are being created every year on Saturn.” Given that the ringed planet is too far to actually see this phenomenon, the initial reaction to this assertion is skepticism. But the scientist says that his team’s conclusions are rooted in the basic principles of chemistry.

It is a well-known fact that about 0.5% of Saturn’s atmosphere comprises of methane. Also, thanks to images sent in by NASA spacecraft Cassini, which has been orbiting the ringed planet since 2004, researchers know that Saturn is susceptible to giant lightning storms and even hurricanes.

Using this information, Kevin and the study’s co-author - planetary scientist Mona Delitsky, deduced that the lightning burns up the methane that is present in the atmosphere and transforms the odorless, colorless gas into soot or carbon. As clouds of the black carbon are ‘raining’ down on the planet, they clump together and form graphite which gets subjected to intense pressure from the atmosphere as it gets closer to the planet’s core and transforms into the shiny precious stones that we lovingly call diamonds. While Jupiter’s atmosphere comprises of only 0.2% methane the scientists believe that a similar phenomenon occurs there too.

This is not the first time scientists have speculated about diamond rain. Uranus and Neptune are long known to be diamond treasure troves. Not only does their atmosphere comprise of 15% methane, but also, the temperature does not get to over 3,820 Kelvin (6,416°F), the melting point of diamonds. This means that the precious stones that fall are most likely strewn all over the planets just waiting to be picked up! While this may be possible some day, for now it is just wishful thinking. Here’s hoping that one day our skies will open up and spew out the shiny stuff too!

Source: Nationalgeographic.com (Oct. 22/2013)
The 47th Bridges Monthly Book Review was held on 09.01.’15

Book : The Inheritance Cycle
Author : Christopher Paolini
Reviewed by : Ms. Suchitha Raghunathan, III yr., BMS

Forthcoming Bridges Monthly Book Review
Feb. 2015 : Speeches that Changed the World by Alan J. Whiticker
Reviewer : Dr. H. Tamizhchelvan, Addl. Prof., Dept. of Oral Pathology, Faculty of Dental Sciences.

A New Year

With the warmth of the sun
Piercing the misty clouds,
I take a sip of coffee
And look back...

A year when everything begun, with resolutions like always
Some stayed, some perished.
The nature had its share of wrath,
Taking lives that mattered;
Those tiny tremors that engulfed people,
Those vanishing objects beyond the clear skies.
Mysteries unravelled and new ones formed,
Arose many legends and prodigies;
Winners who grabbed attention,
Competitors who made history.
Reckless were the black days
In media and papers;
For the ruthless murder of the young souls,
For the wailing women for food,
And for the men searching the debris for gold.
And then with the warmth of the sun
Piercing the misty clouds,
I take another sip of coffee
And look forward...

For a year that would set our hopes high,
For a year which would bring us a perseverance to fulfill,
For a year when the man would favour the nature,
For a year when man would love man.

- Ms. Muwaffika Taj, I yr., MBBS

Dr. S. Roopa,
Assoc. Prof., Dept. of Physiology