Beloved Readers,

The advent of the New Year has seen the induction of many activities in the campus like student's council & Tamil mandram. It's that time of the year when faculty and students strive hard to bring credit to the university and themselves. We look back and enjoy how much we have grown and also realize it's time to reset the axis and surge forward.

'Believe it or not' in this issue asserts that twinkle, twinkle little star is not only for kids, but for dung beetles too. 'That on which we invest time grows', says Happiness is. So let's slow down the relentless pace of our lives, do one thing at a time and find a balance.

Let us stay connected...

Sheela Ravinder. S.
Editor-in-Chief

Letters to the Editor

Dear Editor,

Being away from Chennai, Bridges keeps me posted about all the happenings in my university. Every month I never fail to grab my online copy of bridges. I love reading 'Believe it or not' which is full of fascinating scientific facts. Recently I have grown to be a huge fan of 'Soul to Soul'; I have even started brushing up my high school quantum mechanics to get a better understanding of certain parts of this section. Being a trained artist myself, I am sometimes enthralled by some of the brilliant paintings published in the colors section. Thank you Bridges for keeping me connected with my beloved university even years after I have passed out.

Ms. Kiruthika Muthuswami
Alumni, (2008 -10 Batch)
Dept. of Bioinformatics

Memories

Dept. of Clinical Psychology in association with the National Academy of Psychology (NAOP) organized training of trainers program on ‘Psychosocial intervention in the Tsunami Aftermath’ from 5th to 9th Dec. 2005.
Republic Day Celebrations at SRU

Kamat Memorial Oration was delivered by Dr. J. V. Divatia, Prof. & Head, Dept. of Anesthesia, Critical Care & Pain, Tata Memorial Hospital, Mumbai.

Dept. of Anesthesiology, Critical Care and Pain Medicine organized the 14th Annual CME, RACE 2013 from 25th to 27th Jan. More than 800 delegates from all over the country participated.

Prof. Vijayalakshmi

Faculty of Nursing organized a Nurses Symposium on Global Health Approach in Healthcare on 25th Jan. The speakers were Prof. Eric Walker, Honorary Prof. of Travel Medicine, Royal College of Physicians, Glasgow, UK, Ms. Randi Hammer Bagni, Community Midwife & Ms. Kristen Bru Espedal, Community Nurse from Norway. Around 75 nurses & nursing students attended.

Dept. of Periodontology & Implantology organized the 5th Rapid Review & Revision Course, RRRCP 2013 from 24th to 27th Jan. 160 delegates benefited.

On 24th Jan. Dr. Sanjiv Kumar Singh Marya, President - Indian Orthopedic Association delivered the third Prof. S. S. K. Marthandam Endowment Oration on 'Learning Never Stops'.

Dept. of EHB, Indian Institute of Tropical Meteorology, Pune and Forschungszentrum Jülich, Germany conducted an International Workshop on Challenges and Opportunities in Air Pollution and Climate Change, CHOPC-2 from 23rd to 25th Jan. The special address was given by Dr. Martin Schultz, Forschungszentrum Jülich, Germany. 30 delegates participated.

Dept. of Orthopedics conducted the 14th Annual Rapid Review Program, SCORE 2013 from 23rd to 26th Jan. 160 delegates from various parts of the country participated.

Dept. of General Surgery organized the 15th Annual Rapid Review Revision Course, ARRC 2013 for PGs from 21st to 26th Jan. 150 delegates participated.
On 24th Jan. Prof. H. L. Trivedi, Director, Institute of Kidney Disease and Research Center, Ahmedabad delivered the Dept. of Nephrology Annual Oration on 'Transplant Tolerance'.

Sri Ramachandra University Students Council was inaugurated on 9th Jan. President - Mr. Prashanth Krishna G., final yr., MBBS, Secretary - Ms. Niranjana Chellappa, final yr., MBBS & Treasurer - Mr. Kaushik Dev K., final yr. BDS. The executive committee consists of representatives of the constituent colleges.

As part of Faculty - Student Exchange Program one faculty & 13 students from College of Nursing, University of Wisconsin, Oshkosh, USA visited and gained clinical experience from Sri Ramachandra Hospital from 9th to 14th Jan.

Dept. of Conservative Dentistry & Endodontics organized a comprehensive review program Finish Line 2013 from 21st to 23rd Jan. Around 150 delegates from all over India participated.

Sri Ramachandra School and College of Nursing organized the 9th International Nurses Conference with the theme 'Nursing: Nucleus in the Health Care Domain' from 7th to 9th Jan. Dr. Jaya Jambunathan, Director - Research & Evaluation, Asst. Dean - University of Wisconsin, Oshkosh, USA was the special guest. Around 238 delegates attended.

The Medical Oncology Unit of Dept. of General Medicine along with the Indian Oncology Cooperative Network (ICON), Mumbai jointly organized the 2nd Meeting of Clinical Practice Guidelines in Oncology on 22nd Dec. Dr. Purvish Parikh, President, Indian Society of Medical & Pediatric Oncology, Dr. Hemanthraj, Scientific Director, Cancer Institute, Chennai and Dr. Ramesh Billimappa, President, Association of Radiation Oncologists of India inaugurated the event. More than 400 delegates attended.

Christmas Celebrations at SRU

As part of the MoU with Kyushu University, Japan, dept. of Prosthodontics organized a Pre-conference Hands-on Course by Prof. Hosokawa, Dean on 6th Dec. 50 participants from various colleges across India attended.
Date | Event | Department
--- | --- | ---
24.01.13 | Guest lecture on 'Matters Related to Schedule M' by Mr. Arunachalam, Retd., Drug Controller, Govt. of Tamil Nadu, Chennai | Pharmaceuticals
21.01.13 | UG & PG Students Scientific Meet, 'Divine Dentistry' held at Tamil Nadu Government Dental College & Hospital Dr. Divya N. & Dr. Prabhu Thej - III yr. MDS, Dr. Narrenthan & Dr. Divya N. & Dr. Prabhu Thej - III yr. MDS, Dr. Narrenthan & Dr. Nivethitha, II yr. MDS won 1st prize for symposium Dr. Ankita Sakhia & Dr. Jean Aishwarya, I yr. MDS won 1st prize for poster presentation Dr. Priya, Senior Intern won 1st prize for paper presentation | Pedodontics & Preventive Dentistry
19.01.13 | CME on 'Physiology of Heat Stress' The guest speakers were Dr. Kannan Pugazhendi, Director, SPARRC Institute, Chennai & Dr. P. K. Nag, Director, National Institute of Occupational Health, Ahmedabad | Physiology
10.01.13 | Guest lecture on 'Professional Voice Care' by Dr. David A. Oppermann, Founder & CEO, Colorado Voice Clinic | ENT & SLHS
04.01.13 to 07.01.13 | Prof. P. M. Venkata Sai, HOD delivered the Dr. Diwan Chand Aggarwal Memorial Oration 2013 at 66th Annual Conference of Indian Radiological & Imaging Association held at Indore | Radiology & Imaging Sciences
04.01.13 to 06.01.13 | Dr. Amusha R., final yr. PG & Dr. Vijayathi Thomas, II yr. PG have won the best paper awards in the 3rd National Conference of Society of Biological Scientists of India at Karpagam Vinayaga Institute of Medical Sciences & RI, Maduranthakam | Biochemistry
30.12.12 | Dr. Shubha, Professor and Head of Pediatric Critical Care Unit, won the 1st prize in the ‘Quiz for Practising Pediatricians’, conducted by the Chennai Chapter of Indian Academy of Pediatrics | Pediatrics
21.12.12 | Guest lecture on 'Mechanistic Analysis of Electrocardiology' by Dr. Hui-Nam Pak, Director of EP Lab, Division of Cardiology, Yonsei University, Korea | Cardiology
21.12.12 | Guest lecture on 'Laser Therapy in Skin Disease' by Dr. Heesu Kim, Inha International Medical Center, Korea | Dermatology
21.12.12 | Guest lecture on 'Antimicrobial Resistance of Staphylococcus aureus' by Prof. Lee Hyuk Min, Director, Clinical Research Center, Myongji Hospital, Korea | Microbiology
21.12.12 | Guest lecture on 'Actiopathogenesis of Psoriasis' by Prof. Lee Min-Geol, Chairman, Dept. of Dermatology, Yonsei University, Korea | Microbiology
21.12.12 | Guest lecture on 'Morphologic Findings of Bone Marrow in Leukemia' & 'Overview of Coagulation System and Bleeding Disorders' by Prof. Chul Joo Lyu, Division of Pediatric Oncology, Cancer Center & Institute for Cancer Research, Severance Hospital, Korea | Pediatric Oncology
21.12.12 | Guest lecture on 'Application of Magnetic Switch for the Control of Cell Signaling in in-vitro and in-vivo systems' & 'Role of Endogenous Ligand of HMGB1 in Innate Immunity' by Prof. Jeon-Soon Shin, Director, Severance Biomedical Science Institute, Yonsei University, Korea | Human Genetics
21.12.12 | Guest lecture on 'Surgical Treatment of Oral Tongue Cancer' & Predictable Treatment Options in the Esthetic Zones' by Prof. Cha In-Ho, Oral and Maxillofacial Surgeon, Yonsei University, Korea | Oral and Maxillofacial Surgery
09.12.12 | Dr. Angel, Dr. Imran, Dr. Lalith Narayanan & Dr. Siddhija, I yr. MDS won the overall second best table clinic award at the Conference of Asian Academy of Prosthodontics and Indian Prosthodontic Society | Prosthodontics

New Projects Sanctioned

<table>
<thead>
<tr>
<th>Title</th>
<th>Principal Investigator</th>
<th>Funding Agency</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Development, Characterization and Validation of Novel Ultra filtration Membranes for Hemodialysis in Preclinical Model</td>
<td>Prof. P. Soundarajan Nephrology</td>
<td>DST</td>
</tr>
<tr>
<td>2. Vulnerability Assessment to Heat stress and its impacts on Health and Productivity for select Occupational sectors in the context of Climate Change</td>
<td>Prof. Vidhya Venugopal EHE</td>
<td>DST</td>
</tr>
<tr>
<td>3. Marine Anti-cancer compounds</td>
<td>Dr. Elizabeth Rajesh Biotechnology</td>
<td>SERB, DST</td>
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</tbody>
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Happiness is... in managing ourselves

Good time management is essential to get ahead & succeed in life. Time is His gift unto us. Effective time management lies not in managing time, but managing our own lives in a better way to achieve more with less effort, in the same amount of time. We have to periodically evaluate our priorities & differentiate between productive & non-productive use of time. Working with set goals and following correct time & work management techniques can help us to overcome procrastination. We need to live in the present and take time for relationships. Planning our day can result in higher productivity and more leisure time. We need time to take care of our health, pursue talents, progress in our career, spend time with the family, reach out for a social cause and grow spiritually. It cannot be one after the other and hence we need to view priorities horizontally. Working on priorities, delegating, avoiding procrastination and multitasking are some ways to manage time efficiently.

“The bad news is time flies. The good news is you’re the pilot.”
– Michael Alshule
Global News
Combating Muscular Dystrophy

Usually, results from a new study help scientists inch their way towards answering whether they are battling a health problem or are on the verge of a technological breakthrough. Once in a while, those results give them a giant leap forward. In a canine model study of Duchenne muscular dystrophy (DMD), University of Missouri scientists showed exactly such a leap using gene therapy to treat muscular dystrophy.

Muscular dystrophy occurs when damaged muscle tissue is replaced with fibrous, bony or fatty tissue and loses function. It is the most common type of muscular dystrophy predominantly affecting boys. Patients with DMD have a gene mutation that disrupts the production of dystrophin, a protein essential for muscle cell survival and function. Absence of dystrophin starts a chain reaction that eventually leads to muscle cell degeneration and death. For years, scientists have been working to find the key to restoring dystrophin, but they have faced many challenges.

One of the largest hurdles in DMD gene therapy is the large size of the gene. Dystrophin is the largest gene in the human genome, coding for approximately 4,000 amino acids. To fit the dystrophin gene into a vehicle that could deliver the gene to the appropriate site in the body, one has to delete 70 percent of the gene. The highly abbreviated gene is known as the “micro-dystrophin” gene. Previous studies suggest that micro-dystrophin can effectively stop muscle disease in mice that are missing dystrophin. However, mice that are missing dystrophin show minimal DMD symptoms, and results from mice often do not predict what will happen in humans. In contrast to mice, loss of dystrophin results in severe muscular dystrophy in dogs. If micro-dystrophin can work in dystrophic dogs, it will likely work in human patients. Unfortunately, when micro-dystrophin was tested in dogs in previous studies, it was not successful.

To overcome these hurdles, a team led by Dongsheng Duan, the Margaret Proctor Mulligan Professor in Medical Research at the MU School of Medicine, engineered a new micro-dystrophin gene that carries an important functional region missing in previously tested micro-dystrophins.

“We placed the new microgene into a virus and then injected the virus into dystrophic dogs’ muscles,” Duan said. Following gene therapy, Duan’s team examined the dogs for signs of muscle disease and measured muscle force in treated and untreated dogs. After careful evaluation of 22 dogs, Duan and colleagues found that the new version of micro-dystrophin not only reduced inflammation and fibrosis, it also effectively improved muscle strength.

If additional studies, including animal studies, are successful within the next few years, MU officials would request authorities from the federal government to begin human drug development. After this status has been granted, researchers may conduct human clinical trials with the hope of developing new treatments for Duchenne muscular dystrophy.

Source: Jin-Hong Shin, Xiaofan Pan, Chady H Hakim, Hsiao T Yang, Yongping Yue, Keqing Zhang, Ronald L Terjung, Dongsheng Duan. Microdystrophin Ameliorates Muscular Dystrophy in the Canine Model of Duchenne Muscular Dystrophy. Molecular Therapy, 2013;

Believe it or Not
Insects Use Stars for Navigation

An insect with a tiny brain and minimal computing power has become the first animal proven to use the Milky Way for orientation. Scientists from South Africa and Sweden have published findings showing the link between dung beetles and the spray of stars which comprises our galaxy.

Although their eyes are too weak to distinguish individual constellations, dung beetles use the gradient of light to dark provided by the Milky Way to ensure they keep rolling their balls in a straight line and do not circle back to competitors at the dung pile.

“The dung beetles don’t care which direction they’re going in; they just need to get away from the bun fight at the poo pile,” said Professor Marcus Byrne from Wits University. Byrne and his team previously proved that dung beetles use the sun, the moon and polarized light for orientation. In their experiments, they gave the beetles ‘caps’ which blocked light from reaching their eyes. The team also discovered that the beetles climb on top of their dung balls to perform an orientation ‘dance’ during which they locate light sources to use for orientation.

Now, further experiments, conducted under the simulated night sky of the Wits Planetarium, have shown that the beetles also use the Mohawk of the Milky Way — giving new meaning to dancing with the stars! The scientists suspect the beetles have a hierarchy of preference when it comes to available light sources. So if the moon and the Milky Way are visible at the same time, the beetles probably use one rather than the other. A few other animals have been proven to use stars for orientation, but the dung beetle is the first animal proven to use the galaxy.

Soul to Soul

The arrival of the 20th century saw the need for the ingeniously constructed and orderly boundaries of the scientific enterprise and its methodologies to be probed, searched and studied farther and deeper. Einstein's proposal of the general theory of relativity and the bizarre and unusual behavior of matter in the subatomic realm suggested by quantum theory blurred the prevailing linear descriptions of time and space in classical physics and the rigid indivisibility and predictability of matter.

In the quantum world for example, we are told that particles can exist in multiple locations or in multiple states at the same time. This is known as quantum superposition. Another feature, equally perplexing, is known as nonlocal entanglement in which quantum particles remain separated across wide distances but still remain connected in mysterious ways. Quantum coherence is yet another property whereby particles can condense to a unified state.

Of these, nonlocal quantum entanglement which suggests instantaneous connections occurring between particles, objects and energies that are widely separated in space and time, created serious difficulties in the minds of scientists. This feature, with complete lack of any explanatory mechanism for it is what made Einstein describe it as 'spooky action at a distance.' Quantum entanglement however, has been repeatedly demonstrated and several new technologies like quantum computing, quantum cryptography and quantum teleportation have used the phenomena of entanglement and superposition.

Nils Bohr, the Danish physicist noted that measuring a quantum superposition caused it to 'reduce', or 'collapse' to specific values. Because a conscious observer was needed to complete the measurement, it was proposed that consciousness caused collapse of the quantum wave function. This is known as the 'Copenhagen interpretation.' Erwin Schrödinger was so perplexed by this that he had to invent his famous 'thought experiment': a cat is both dead and alive until consciously observed.

But do we see quantum superposition and entanglement in our everyday 'classical' world? Certainly not. It would appear that there is a boundary or edge between two phases of reality; the quantum and classical worlds; and that edge - also known as 'quantum state reduction', or 'collapse of the quantum wave function' - is influenced by consciousness.

Quantum events are believed to be involved in several life processes: these include energy transfer in photosynthesis in plants and some microorganisms, quantum-assisted sensing of earth's magnetic field in some birds and insects and in creating conscious experience in the brain.

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

Reach Out

In memory of our Founder-Chancellor, Shri. N. P. V. Ramassamy Udayar, SRU organized a free multi-specialty medical camp & emergency medical services along with Codiassia trade fair complex, Coimbatore at Indian Road Congress 73rd Annual Session Pavillion, Coimbatore from 7th to 11th Jan. Prof. T. V. Ramakrishnan, Emergency & Trauma Care with a team of 20 doctors and paramedical staff participated in this camp. Investigations including blood tests, ECG, echocardiograph and ultrasound along with medicines for one week were provided free of cost. More than 1000 people benefited.

SRU organized a free multi-specialty medical camp at International Islamic Peace Conference, E.C.R Uthandi from 10th to 20th Jan. in memory of our Founder-Chancellor, Shri. N. P. V. Ramassamy Udayar. A team of 20 doctors and paramedical staff participated in this camp. Investigations including blood test, ECG, echocardiograph and ultrasound along with medicines for ten days were provided free of cost. More than 4000 people benefited.
Welcome Summer

Colors

Mix 'n' Match

Dr. M. Bagavad Geetha
Assoc. Prof., Dept. of Physiology

Ms. M. Krupa,
Lecturer, Dept. of SLHS

Your Corner
Serene

Art by Dr. Indhumathi
Final yr. M.D.S, Dept. of Oral Medicine & Radiology

The 24th Bridges Monthly Book Review was held on 06.02.13
Book : The Kite Runner
Author : Khaled Hosseini
Reviewed by : Mr. Akshay Singh, CRRI
Forthcoming Bridges Monthly Book Review
Mar. 2013 - The Tiger's Wife by Téa Obreht
To be reviewed by Mr. P.A. Abhinand, Research Scholar, Dept. of Bioinformatics

February '13

For internal circulation only