

**CONFERENCE PROCEEDINGS**



**Healthcare & Biological Sciences Research Association**

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29 May – 30 May, 2018

Conference Venue  
Congress Centre, Tecnico (Universidade de Lisboa), Campus da Alameda,  
Lisbon, Portugal

## **KEYNOTE SPEAKER**



**Eva Harara**  
**Public Health and Recreation Professions Department Southern Illinois University,**  
**Chicago, U.S.A.**

My name is Eva Harara and I am a professor at the Public Health and Recreation Professions Department at Southern Illinois University. I obtained my master's degree in Health Education and Promotion from the University of Alabama and am in the process of pursuing my PhD degree in Public Health at SIU (graduate December of 2018). I am also the assistant manager of Success Academy in Orlando, Florida. My research interests include public health leadership and management, self-efficacy, behaviour change, and andragogy/pedagogy techniques in health education/public health. I am a comfortable and confident public speaker and able to motivate and inspire others to action. We may have the power of education and knowledge, but how much we care, how much we give, how much we empower others is what really matters.

**Topic:** Self-Efficacy and behaviour change


## **PLENARY SPEAKER**




**Priscilla Suresh**  
**Department of Zoology, Bishop Heber College Bharathidasan University,**  
**Tiruchirappalli, Tamil Nadu, India**  
**Topic:** Phytotherapy for Obesity Management

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| <p><b>Ayse Tuna</b><br/>GICICHLSR1803054</p>       | <p style="text-align: center;"><b>Teaching Emergency Phone Numbers To Young People With Mild Mental Retardation</b></p> <p style="text-align: center;"><b>Ayse Tuna</b><br/>Lecturer, Trakya University, Edirne, Turkey</p> <p style="text-align: center;"><b>Emine Ahmetoğlu</b><br/>Assoc. Prof., Trakya University, Edirne, Turkey</p> <p style="text-align: center;"><b>Abstract</b></p> <p>Individuals with mental retardation may face many dangers in their daily lives. Since families and professionals are concerned about the risks that the individuals with mental retardation may face, there is no doubt that special skills are needed to ensure their safety. Hence, teaching such skills is a critical issue for people with mental retardation. In this study, the aim is to show whether or not the simultaneous teaching method is effective in the teaching of emergency phone numbers to young people with mild mental retardation.</p> <p><b>Keywords:</b> Emergency phone numbers, mental retardation, simultaneous teaching, clues.</p>   |
| <p><b>Lee Liu</b><br/>GICICHLSR1803055</p>         | <p style="text-align: center;"><b>Environmental Health and Justice in a Chinese Environmental Model City</b></p> <p style="text-align: center;"><b>Lee Liu</b><br/>School of Environmental, Physical and Applied Sciences, University of Central Missouri, Warrensburg</p> <p style="text-align: center;"><b>Abstract</b></p> <p>The paper examines environmental health disparities in Dalian, China, and their association with geographic, social, and economic factors, based on township-level mortality registry databases. It is the first time such databases in China are used for research in environmental health. It highlights environmental justice in a sustainability perspective in revealing that health risks and benefits of environmental cleanups were unequally distributed between urban centers and their suburbs. Consequently, environmental conditions and associated death rates and cancer mortality rates (CMR) drastically degraded in the suburbs. A link between high CMR and industrial pollution was discovered through space-time cluster and statistical analyses. In addition, population aging was found to be a factor for understanding the spatial inequalities of cancer and death. These novel findings provide insights to environmental health disparities while contributing to the development of effective policies.</p> <p><b>Keywords:</b> environmental health; environmental justice; sustainability; health disparities; human health and the environment.</p> |
| <p><b>Chang, Yu Chuan</b><br/>GICICHLSR1803059</p> | <p style="text-align: center;"><b>The Project Reducing Incidence Rate of Pressure Sore</b></p> <p style="text-align: center;"><b>Chang, Yu Chuan</b><br/>Nursing Department, Cardiovascular Center of National Taiwan University Hospital Taipei, Taiwan</p> <p style="text-align: center;"><b>Abstract</b></p> <p>This project held reducing the incidence rate of pressure sore. In this ward, recorded 53cases of pressure sores from January 2015 to December 2015.This resulting pressure-sore incidence density of 0.61% exceeded the Taiwan Clinical Performance Indicator(TCPD)for medical centers (0.5%). The problems were as follows: the insufficient knowledge of nurses, a lack of practice of position changing, no auditing system and poor quality of pressure-reducing surface.That the status could be improved by (1) arranging on-the-job education (2)providing beside teaching (3)</p>   |

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|   | <p>establishing standard techniques(4) adding new protection tools (5)and establishing an audit team.After the enforcement of the measures above, the incidence rate was reduced from 0.61% to 0.33%. It is hoped that our experience can serve to help improve quality of care in other hospitals.<br/><b>Keywords:</b> pressure sore, nursing, body-turning and positioning, incidence density</p>  |
| <p style="text-align: center;"><b>Peng Hsueh-Ping</b><br/>GICICHLR1803060</p> | <p style="text-align: center;"><b>Awareness And Willingness Of Signing Consent Form In Palliative Care In Elderly Patients With End Stage Renal Disease</b></p> <p style="text-align: center;"><b>Peng Hsueh-Ping</b><br/>Shin Kong Wu Ho Su Memorial Hospital, Department Of Nursing, Taipei, Taiwan</p> <p style="text-align: center;"><b>Abstract</b></p> <p>End-stage renal disease most commonly occurs in the elderly population. Elderly people are approaching the end of their lives and when facing major life threatening situations, apart from aggressive medical treatment, they can also choose treatment methods such as hospice care to improve their quality of life. The purpose of this study was to investigate factors associated with the awareness and willingness to sign hospice and palliative care consent forms in elderly with end-stage renal disease.</p> <p>This study used both quantitative, cross-sectional study designs. In the quantitative section, 110 elderly patients (aged 65 or above) with end-stage renal disease receiving conventional hemodialysis were recruited as study participants from a medical center in Taipei City. Data was collected using structured questionnaires. Study tools included basic demographic data, questionnaires on the awareness and perception of hospice and palliative care etc. After collecting the data, data analysis was conducted using SPSS20.0 statistical software, including: descriptive statistics, chi-square test, logistic regression, and other inferential statistics. The results showed that the average age of participants was 71.6 years old, more males than females, average years of dialysis was 6.1 years and most subjects rated their self-perceived health status as fair. Results of the study are summarized as follows: Elderly people with end-stage renal disease did not have sufficient knowledge and awareness about hospice and palliative care. Influencing factors included level of education, marital status, years of dialysis and age etc. Demographic factors influencing the signing of consent forms included gender, marital status, and age, which all showed significant impacts. Factors taken into consideration when signing consent forms included awareness of hospice care, understanding the relevant definitions of hospice care, and understanding that consent may be modified or cancelled at any time; it was predicted that people who knew more about ways to receive hospice care or more related definitions were more willing to sign the consent forms.</p> <p>In the qualitative study section, 10 participants who signed the consent form, five male and 5 female, between the ages of 65-90, have completed the semi-structured interviews. Analysis of the interviews revealed six themes: (1) passing away peacefully, (2) autonomy on arrangements of life and death, (3) unwillingness to increase family and social burden, (4) friends and relatives' experience influencing the decision to give consent, (5) sharing information to facilitate the giving of consent, (6) facing each day with ease, to reflect the experience and factors of consideration for elderly with end-stage renal disease when signing consent forms. The results of this study provides the awareness, thoughts and feelings of elderly with end-stage renal disease on signing consent forms, and serve as a future reference for the dialysis unit to enhance the promotion of hospice and palliative care and related caregiving measures, thereby improving the quality of life and care for elderly people with end-stage renal disease.</p> |

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|  | <p><b>Keywords:</b> end-stage renal disease, hemodialysis, hospice and palliative care, awareness, willingness</p>  |
| <p><b>Tsui Mien Yu</b><br/>GICICHLR1803061</p>   | <p><b>Improve The General Ward Nurses First Aid Process And Self-Confidence Project</b></p> <p><b>Tsui Mien Yu</b><br/>National Taiwan University Hospital, Department Of Nursing, Taipei, Taiwan</p> <p><b>Abstract</b><br/>The Immediate Life Support course is a multidisciplinary 1-day course which provides the essential knowledge and skills that are important in the initial phase of treating a critically ill patient who needs resuscitation. Therefore, it is ideally suited for the training of healthcare providers at all stages and levels.<br/>It provides training in more diagnostic skills than the BLS course I expands core knowledge and teaches airway management skills, ECG recognition and rapid, safe defibrillation, using an AED or a manual defibrillator. The concept follows closely that of the ALS course, but focuses only on the core knowledge and skills appropriate for most healthcare providers. The course aims to be the first-line resuscitation course for healthcare professionals.</p> <p><b>Course programme</b><br/><b>Skill Stations &amp; Lecture</b></p> <ul style="list-style-type: none"> <li>• Skill Station 1: High-quality chest compression &amp; defibrillation</li> <li>• Skill Station 2: The deteriorating patient</li> <li>• Skill Station 3: Managing the airway &amp; obtaining intraosseous access</li> <li>• Skill Station 4: Basic Life Support &amp; Targeted training*</li> <li>• Lecture: "The ALS algorithm incl. non-technical skills"</li> </ul> <p><b>Cardiac Arrest Simulation Teaching scenarios (CASTeach)</b></p> <ul style="list-style-type: none"> <li>• CASTeach 1: Treatment of shockable rhythms</li> <li>• CASTeach 2: Treatment of non-shockable rhythms</li> <li>• CASTeach 3: Decision-making during resuscitation</li> <li>• CASTeach 4: Post-resuscitation car</li> </ul> <p>*(e.g. monitoring, rhythm recognition and 12-lead ECG, arterial blood gas analysis and waveform capnography, hypovolaemia, trauma, asthma, anaphylaxis, electrolyte disorders, pregnancy, hypothermia, perioperative cardiac arrest, drowning, obesity, advanced training in non-technical skills, advanced training in airway management, advanced training in intraosseous access, equipment)</p> |
|  <p><b>Hsu Shu Chin</b><br/>GICICHLR1803062</p> | <p><b>Reduce ward urinary tract infection and improve the project</b></p> <p><b>Hsu Shu Chin</b><br/>National Taiwan University Hospital, Department Of Nursing, Taipei, Taiwan</p> <p><b>Abstract</b><br/>Urinary tract infection accounted for the hospital nosocomial infection second, in 2015 the rate of urinary tract infection was 1.05%, higher than the average hospital 0.94%, of which 85% of urinary tract infections and urinary catheter indwelling, hoping to project Of the implementation, to reduce the incidence of ward urinary tract infection, and thus for the prevention of urinary tract infection can be helpful.<br/>According to the investigation of the ward urinary tract infection rate is mainly due to: (1) the patient factors: mostly high risk of urinary tract infection group (2) medical staff: prevention of urinary tract infection health education is incomplete, ignoring catheter retention days (3) the main caregiver: prevention of urinary tract infection, lack of knowledge,</p>   |

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|   | <p>perineal irrigation technology is not accurate (4) policy and management: lack of catheter removal mechanism, not standardized audit system. The measures include: (1) use of indwelling catheter care guidance health education leaflet (2) organize the prevention of urinary tract infection group health education (3) design and use of perineal flushing checklist (4) Design and Use of Primary Caregivers Performing Indwelling Catheterization Care and Technical Checklist (5) Design and Use of Indwelling Catheters Remove Daily Assessment Schedule.</p> <p>After the implementation of the project, the correct rate of performing primary perineal irrigation by primary caregivers was increased from 88% to 94%, and the correct rate of prevention of urinary tract infection was raised from 84% to 88%. Nursing staff provided the rate of completion of nursing instruction on prevention of urinary tract infection, From 26.67% to 100%, indwelling catheter early removal success rate increased from 40% to 57%. In 2016, the average incidence of urinary tract infection decreased from 1.05% to 0.82%. This shows that increasing the awareness of urinary tract infection prevention and implementing the guidance of nursing care can indeed reduce the urinary tract infection rate.</p> <p><b>Keywords:</b> Urinary tract infection catheter care guidance health education Assessment Schedule</p>   |
|  <p><b>Seyed Khalil Rashidi</b><br/>GICICHLR1803063</p> | <p><b>Production of recombinant monoclonal antibody derived from camel heavy chain antibody against colorectal cancer cell line</b></p> <p><b>Seyed Khalil Rashidi</b><br/>Biotechnology Research Center, Semnan University of Medical Sciences,<br/>Semnan, Iran</p> <p><b>Ali Akbar Shabani</b><br/>Biotechnology Research Center, Semnan University of Medical Sciences,<br/>Semnan, Iran</p> <p><b>Abstract</b></p> <p><b>Introduction:</b> Colorectal cancer is the third most invasive cancer worldwide. The general treatment options for this cancer include radiation therapy, chemotherapy, and surgery. Immunotherapy is one of the appropriate treatment options, due to the high side effects of these methods. Monoclonal antibodies are a new method of treating colon cancer. The variable domain of camelid heavy chain antibodies or VHHs is widely used in molecular biology and biotechnology. This nanobody is highly compatible with the phage display method, which is highly efficient in antibody screening and isolation. The aim of this study is isolation a specific colorectal cancer monoclonal antibody using the naive VHH's library.</p> <p><b>Method:</b> In this study, we used the naive Phage library against Ls174T and HT29 cells from colorectal cell lines. VHHs with high affinity were selected and sub-cloned. The association and determination of isolated VHH via ELISA were tested. The reactivity of VHH with cancerous cell lines was investigated by competitive ELISA with serum isolated from patients with colorectal cancer.</p> <p><b>Result:</b> The results show that isolated VHH has a high affinity to colorectal cancer cells and has the ability to connect and detect these cells. In addition, isolated nano-bodies are able to compete with antibodies in the serum of patients in binding to cancerous cells.</p> <p><b>Conclusion:</b> Our result demonstrated that isolated VHH can interact with colorectal cancer cell lines and can be used for early diagnosis and treatment of the patient that suffering from colorectal cancer.</p> <p><b>Keywords:</b> Monoclonal antibody, Colorectal cancer, Phage display, Nanobody</p> |



Mitra Ansari Dezfouli  
GICICHLSR1803064

**Effect of melatonin administration in Rat Model of Alzheimer's Disease**

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**Abstract**

**Introduction:** Alzheimer's disease (AD) is an age-associated neurodegenerative disease that is characterized by a progressive loss of cognitive function, extracellular  $\beta$ -amyloid ( $A\beta$ ) plaques deposition and intracellular neurofibrillary tangles. Melatonin, a tryptophan metabolite, has a number of physiological functions, including circadian rhythms regulator, free radical scavenger, immunity modulator and neuroprotection. Reduced melatonin level in serum and cerebrospinal fluid and the loss of melatonin diurnal rhythm have been demonstrated in Alzheimer's disease (AD) patients. Silent information regulator 1 (SIRT1), a conserved NAD<sup>+</sup>-dependent deacetylase, has been suggested to exert various neuroprotective effects. SIRT1 is involved in neural plasticity, cognitive function, protection against neuroinflammation and neurodegeneration. This study aimed to investigate the effect of melatonin on cognitive function and SIRT1 expression in an animal model of AD.

**Method:** Rats were treated with daily melatonin injection (10mg/Kg body weight; i.p) during 14 consecutive days after intra-hippocampal amyloid beta injection. Memory was assessed by evaluating the alternation behavior in Y-maze. The expression of SIRT1 was detected by Western blot analysis. Neuronal density and morphology assessed by cresyl-violet staining.

**Result:** The percent of alternation behavior increased in ( $A\beta$ )+Melatonin group in compare with ( $A\beta$ )+vehicle group which indicate that melatonin administration improved memory. Melatonin administration enhanced cell density and reduced morphologically damaged pyramidal neurons in hippocampal tissue. Moreover melatonin administration in ( $A\beta$ )+Melatonin group increased the level of SIRT1 protein in hippocampal tissue in compare with ( $A\beta$ )+vehicle.

**Conclusion:** The current study presented the neuroprotective effect of melatonin against amyloid beta induced neurodegeneration and memory impairment. We suggest that some part of melatonin beneficial effects may be related to SIRT1 protein.

**Keywords:** Alzheimer's disease, Melatonin, Memory, Neuroprotection

Yu-Ju Hsieh  
GICICHLSR1803070

Health literacy and self-management related factors in patients with initial dialysis

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**Yu-Chi Chen**


**Shu-Chuan Chen**

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|   | <p style="text-align: center;"><b>Abstract</b></p> <p><b>Introduction :</b> The prevalence of end stage renal disease (ESRD) in Taiwan is highest in the world. Hemodialysis is the most common kidney replacement treatment for ESRD patients. The huge medical expenditure in hemodialysis has been heavy burden in national health insurance system. Hemodialysis patients have well self-management that would decrease complications and increase long-term life quality.</p> <p><b>Objectives :</b> To investigate the health literacy and self-management levels of patients with initial hemodialysis and analyze the predictive factors for self-management.</p> <p><b>Methodology / process :</b> This is a cross-sectional correlation study. The subjects who received hemodialysis no more than six months were recruited from organizations with different medical levels in northern Taiwan by purposive sampling. The data had been collected by structured questionnaire.</p> <p>There were total recruited 271 patients in this study. The average age of all subjects was 65.46 years old. Overall self-management score was <math>49.97 \pm 12.88</math> points. The highest score appeared in self-care activities among the subscales of self-management scale, and the lowest one was partnerships. Education level, primary caregiver, and hospital level showed significant difference with overall self-management. Age and severity of symptoms showed negative correlation with overall self-management. Self-perceived health status, health literacy, and social support showed positive correlation with overall self-management. Multiple regression analysis showed that age, education, health literacy, and social support were the significant predictive factors for self-management. The explained sum of variation was 36%.</p> <p><b>Conclusion :</b> Health literacy and social support are major influencing factors of self-management. Patients who were older and have lower education levels have less health literacy; therefore they also had poor self-management. For patients with poor health literacy, a patient-centered care plan should be made according to individual need to improve self-management by using social support network resource.</p> |
|  <p><b>Ali Ladjama</b><br/>GICICHLR1803075</p> | <p style="text-align: center;"><b>Purification and characterization of a new thermoalkaliphilic pectatelyase from <i>Actinomadura keratinilytica</i> Cpt20 isolated from poultry compost (Algeria)</b></p> <p style="text-align: center;"><b>Ali Ladjama</b><br/>Biochemistry, University of Badji-Mokhtar, Annaba , Algeria</p> <p style="text-align: center;"><b>Boudjema Saoudia</b><br/>Biochemistry, University of Badji-Mokhtar, Annaba , Algeria</p> <p style="text-align: center;"><b>Amina Habbecheb</b><br/>Biochemistry, University of Badji-Mokhtar, Annaba , Algeria</p> <p style="text-align: center;"><b>Bilal Kerouazb</b><br/>Biochemistry, University of Badji-Mokhtar, Annaba , Algeria</p> <p style="text-align: center;"><b>Soumaya Haberrab</b><br/>Biochemistry, University of Badji-Mokhtar, Annaba , Algeria</p> <p style="text-align: center;"><b>Zamen Ben Romdhane</b><br/>Biochemistry, University of Badji-Mokhtar, Annaba , Algeria</p> <p style="text-align: center;"><b>Lazhari Tichatib</b><br/>Biochemistry, University of Badji-Mokhtar, Annaba , Algeria</p>   |



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|  | <p style="text-align: center;"><b>Mokhtar Boudela</b><br/>Biochemistry, University of Badji-Mokhtar, Annaba , Algeria</p> <p style="text-align: center;"><b>Hafedh Belghithc</b><br/>Biochemistry, University of Badji-Mokhtar, Annaba , Algeria</p> <p style="text-align: center;"><b>Ali Gargouri</b><br/>Biochemistry, University of Badji-Mokhtar, Annaba , Algeria</p> <p style="text-align: center;"><b>Abstract</b></p> <p>This study was carried out to investigate the purification and biochemical characterization of a new extracellular alkaliphilic and thermostable pectate lyase (Pel-20) isolated from <i>Actinomyces keratini-lytica</i> strain Cpt20. Pure protein was obtained after sequential chromatographies on a fast performance liquid chromatography (FPLC) and high performance liquid chromatography (HPLC) columns. Matrix-assisted laser desorption/ionization-time of flight mass spectrometry (MALDI-TOF/MS) analysis revealed that the purified enzyme was a monomer with a molecular mass of 34125.11-Da. The enzyme had an NH<sub>2</sub>-terminal sequence of GFATNQGTTGGAGGTL, thus, sharing high homology with actinomycetespectate lyase family. The results showed that this enzyme was completely inhibited by EDTA, which supports its belonging to the pectate lyase superfamily. It showed optimum activity at pH 10.5 and 70°C. The thermoactivity and thermostability of Pel-20 were enhanced in the presence of 1 mM Ca<sup>2+</sup>. Its half-lifetimes at 70, 80, 90, and 100°C were 18, 12, 7, and 2 h, respectively. Its kinetic parameters, K<sub>m</sub> and V<sub>max</sub> values were 0.45 mM and 21,700 U/mg, respectively. Low-esterified pectin was the optimum substrate for the Pel-20. However, higher-esterified pectin was also weakly cleaved. Overall, the alkaliphilicity and thermostability properties of Pel-20 make it a potential candidate for future application in industrial bioprocesses.</p> <p><b>Keywords :</b> Pectate layse , thermophilic, Pectin</p> |
| <p style="text-align: center;"><b>Young duk Koo</b><br/>GICICHLR1803076</p>                        | <p style="text-align: center;"><b>Analysis of the Status of Dementia in Gangwon Province Using Medical Big Data Information</b></p> <p style="text-align: center;"><b>Young-duk Koo</b><br/>66, Hoegi-ro, Dongdaemun-gu, Seoul, Ref. of Korea</p> <p style="text-align: center;"><b>Dae-hyun Jeong</b><br/>5, Joongangro, Chuncheon, Gangwon-do, Korea</p> <p style="text-align: center;"><b>Abstract</b></p> <p>The utilization of big data information in the medical field is expected to have a great impact on the advancement of medical technology. By focusing on the case of Kangwon, the purpose of this study is to grasp the current status of dementia to using health big data information and to derive its implications. With this aim, we analyzed information related to dementia by using health information of Kangwon held by NHIS (National Health Insurance Service). The main analytical methods were simple statistical analysis and associative map analysis. The results of analysis of patients with dementia through medical big data are valuable because they make accurate prediction to reduce dementia patients, and it is expected that synergy will be high if they are fused with various statistical data.</p> <p><b>Keywords:</b> Health Big Data, VOSviewer, Network Analysis, Dementia</p>  |
| <p style="text-align: center;"><b>Mehdi Zekriyapanah</b><br/><b>Gashti</b><br/>GICICHLR1803077</p> | <p style="text-align: center;"><b>RHR: A Recognition Model for Doctors' Handwriting in Medical Prescriptions and Reports</b></p>   |

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|  | <p style="text-align: center;"><b>Mehdi Zekriyapanah Gashti</b><br/>Department of Computer Engineering, Payame Noor University, Tehran,<br/>Iran</p> <p style="text-align: center;"><b>Rouhollah Habibey</b><br/>IUF – Leibniz Research Institute for Environmental Medicine, Düsseldorf,<br/>Germany</p> <p style="text-align: center;"><b>Abstract</b></p> <p>In this article, we looked for a proper solution to detect the doctors' Persian handwriting in medical prescriptions and reports. To this end, we used the implementation of a fuzzy-neural expert system. The fuzzy-neural expert system has already been used to identify characters in English language, which has been a successful method, but due to significant differences of Persian letters, words and sentences with their equivalents in English, the detection of Persian characters cannot be done the same. Hence, we needed to make changes to use the method in recognizing the Persian characters. Thus, we proposed the RHR model to identify Persian language characters. The proposed RHR model is based on the separation of letters. Following the recognition of letters, by forming a database of identified letters, the obtained results are examined using a fuzzy system to detect the words. Two data sets were used to simulate the proposed model. A datasheet is the written prescriptions by doctors for patients referring to a medical clinic and the second dataset is related to medical treatment reports samples of patients admitted to the emergency department of the hospital. After training the neural network, the results obtained from the output of the proposed RHR model on handwritings of 85 physicians indicated an average recognition percentage of 89.24% in identifying the discrete letters and 84.32% in identifying the words.</p> <p><b>Keywords—</b> Handwriting Recognition; Prescriptions; Persian characters; Separation of Handwritten letters; Nneural Network.</p> |
| <p style="text-align: center;"><b>Taishun Li</b><br/>GICICHLRSR1803080</p> | <p style="text-align: center;"><b>Estimation of diagnostic test characteristics and prevalence of Tuberculosis using a Bayesian approach</b></p> <p style="text-align: center;"><b>Taishun Li</b><br/>Department of Epidemiology &amp; Biostatistics, School of Public Health,<br/>Southeast University,87 Ding Jiaqiao Rd., Nanjing 210009, China</p> <p style="text-align: center;"><b>Pei Liu</b><br/>Department of Epidemiology &amp; Biostatistics, School of Public Health,<br/>Southeast University,87 Ding Jiaqiao Rd., Nanjing 210009, China</p> <p style="text-align: center;"><b>Abstract</b></p> <p><b>Background:</b> Bayesian model plays an important role in diagnostic test evaluation in the absence of gold standard, which used external prior distribution of parameter combined with sample data to yield the posterior distribution of the test characteristics. However, the correlation between diagnostic tests has always been a problem that can not be ignored in Bayesian model evaluation, this study will discuss how different Bayesian model, correlation scenarios, prior distribution affect the outcome.</p> <p><b>Method:</b> The data analyzed in this study was gathered during studies of patients presenting to the Nanjing Chest Hospital with suspected Tuberculosis. Diagnostic character of T-SPOT.TB and Anti-mycobacterium tuberculosis antibody test were evaluated in different Bayesian model, and discharge diagnosis as a gold standard were used to verify and compare the model results in the end.</p> <p><b>Result:</b> The comparison of four models under conditional independence situation found that Bayesian probabilistic constraints model was consistent with Bayesian traditional model, the results was mainly affected by prior</p>   |

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|   | <p>information, the sensitivity and specificity for the two tests in model PT were considerably higher than was predicted in model PP. The tuberculosis prevalence was estimated to be 63.6% (95% credible interval 58.8%-69.7%) in model PT, were considerably higher than model PP (53.4%, 95% credible interval 50.6 %-56.2%). The result of the four model under conditional dependence situation were similar to the conditional independence situation, <math>p_D</math> is also negative with no prior constraints in both model NP and NT. The DIC of model PP are close to model PT, but <math>p_D</math> of model PT (<math>p_D=2.40</math>) were higher than model PP (<math>p_D=1.66</math>).</p> <p><b>Conclusion:</b> The result of model PT in conditional independence situation was closest to the result of gold standard evaluation in our data, some factors, such as model difference, prior distribution, correlation coefficient, should be considered in the method selection, the accuracy of results depending on the realistic resources and practical operability.</p> <p><b>Keywords:</b> Bayesian, diagnostic test, Tuberculosis</p>  |
| <p style="text-align: center;"><b>Alexis McKenney</b><br/>GICICHLR1803084</p>       | <p style="text-align: center;"><b>An Examination of Changes in Attitudes as a Result of Participation in Disability Simulation Activities</b></p> <p style="text-align: center;"><b>Alexis McKenney</b><br/>Department of Rehabilitation Sciences, Temple University, Philadelphia, PA, USA</p> <p style="text-align: center;"><b>Abstract</b></p> <p>Attitudes directed at people with disabilities by people without disabilities are formed through encounters with people with disabilities, and are mediated by the characteristics of each person and what occurs during their interactions. Disability simulation activities are used to help positively affect people's attitudes and levels of empathy. The purpose of this study was to examine 10 participants changes in attitudes toward people with disabilities that occurred as a result of participating in disability simulation activities held during an inclusive recreation services study abroad program. A three-phase mixed methods research design that included the use of transformative procedures was used. The social model of disability served as the theoretical lens for this study. The quantitative component involved the administration of two scales pre- and post-test: The Attitudes Toward Disabled Persons (ATDP) scale and the Multidimensional Attitudes Scale Toward Persons with Disabilities (MAS) scale. Quantitative results indicated that participants' experienced positive attitude changes in 12 of the 16 emotions as measured on the MAS and four emotions as measured on the ATDP. Statistical significance was not found for the other examined emotions. Qualitative data were collected using an in-depth thematic analysis of verbal and behavioral responses to participants' responses to participation in extensive disability simulation activities. Qualitative results showed that the participants transitioned from a sympathetic response to an empathetic response, and then to an advocacy response. This transition demonstrated the potential for the emergence of a model specific to guiding participants through disability simulation activities. Suggestions for research and for facilitating effective disability simulation activities within or outside of recreational therapy practice are presented.</p> <p><b>Keywords:</b> attitudes, disability simulations, inclusion, recreational therapy</p> |
|  | <p style="text-align: center;"><b>Study on seeds of <i>Cardiospermum halicacabum</i> and evaluation of its cytotoxic effect on cancer cells.</b></p> <p style="text-align: center;"><b>Behzad Mohaddesi</b><br/>Dr. S. G. Mohaddesi Clinic, Gorgan, Golestan, Iran<br/>Department of Pharmaceutical Sciences, Saurashtra University Rajkot, India</p>   |

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| <p style="text-align: center;"><b>Behzad Mohaddesi</b><br/>GICICHLSR1803088</p>   | <p style="text-align: center;"><b>Ashvin Dudhrejiya</b><br/>B.K.Mody Pharmacy College, Rajkot, Gujarat, India.</p> <p style="text-align: center;"><b>Abstract</b></p> <p><b>Objective:</b> Phytochemical profiling of <i>Cardiospermum halicacabum</i> which is a climber plant of Sapindaceae family with the highlight of its traditional use for medicinal effect. It's known as love in a puff or balloon vine commonly.</p> <p><b>Methodology:</b> Phytochemical parameters and quantitative phytochemical analyses of extracts of the seeds performed and subjected to cytotoxicity with Sulforhodamine B colorimetric (SRB) assay on cancer cell line and subjected to chromatographic techniques.</p> <p><b>Findings:</b> Phytochemical screening gave a positive test for the presence of various secondary metabolites in <i>Cardiospermum halicacabum</i> seeds, and collected extract and fraction showed the cytotoxicity of plants against cancer cell line which inhibited the growth of cells and compared with the known standard drug.</p> <p><b>Research Outcomes:</b> This worked highlighted the valuable information which has a point for better standardization of <i>Cardiospermum halicacabum</i> seeds. As well as an indication of the potential medicinal value of its seeds as a traditional medicinal plant that can be used for clinical investigation of its medical activity.</p> <p><b>Future Scope:</b> pharmacology study and clinical research is a need for better understanding of its medicinal properties in the traditional and modern healthcare system.</p> <p><b>Keywords:</b> Balloon Vine, Cytotoxic, Phytochemical, Seed,</p>  |
| <p style="text-align: center;"><b>Leia Erica Serrano</b><br/>GICICHLSR1803086</p> | <p style="text-align: center;"><b>Teenage Mothers: Ensuring Health and Well-being Through Equal Access to Services Through Online Platform</b></p> <p style="text-align: center;"><b>Amira Zoe T. De La Cuesta</b><br/>Student Researchers, Lorma Colleges Senior High School</p> <p style="text-align: center;"><b>Leia Erica R. Serrano</b><br/>Student Researchers, Lorma Colleges Senior High School</p> <p style="text-align: center;"><b>Katrina Zen Alviar</b><br/>Student Researchers, Lorma Colleges Senior High School</p> <p style="text-align: center;"><b>Venus Mae P. Medina</b><br/>Student Researchers, Lorma Colleges Senior High School</p> <p style="text-align: center;"><b>Fernando Oringo</b><br/>Research Advisers, Lorma Colleges Senior High School</p> <p style="text-align: center;"><b>Abstract</b></p> <p>The third Sustainable Development Goal (SDG) which is to “Ensure healthy lives and promote well-being for all at all ages.” states that by the year 2030 every human on the planet has an access to healthy lives not only in good mental and physical health but also maternal health for it also proposes to end preventable maternal mortality. The target for universal maternal health access has been elevated. Although suggested targets may change as a result of the consultation process, they give us a good sense of the specific areas in which public and private investment will need to be channeled. According to Philippine Statistics Authority, while under-five mortality has declined slightly in recent years from 54 deaths per 1,000 births in 1988-92 to 48 deaths for the period 1993-1997, infant mortality rates have remained unchanged at about 35 deaths per 1,000 births. This study aimed to solve the problems: a) What are the existing programs and services that caters the health and well-being of teenage moms?, b) How do</p> |

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|   | <p>teenage moms acquire information and services from their locale?, and c)How can an online platform help teenage moms in ensuring good health and well-being? This action research made use of interview to the teenage moms of San Juan, La Union. As a result, the researchers came up with an action plan on addressing the third SDG that focuses on the health and well-being of teenage moms. With the said program, the teenage moms will be able acquire the necessary information and support with the aid of technology. Teenage moms requires a huge amount of support from the society in order to stay away from the stigma and allow them to explore further opportunities and raise their own children.</p>   |
| <div style="text-align: center;">  <p><b>Dr. Priscilla Suresh</b><br/>GICICHL SR1803058</p> </div> | <p style="text-align: center;"><b>Physiological and Histopathological studies of antiobesity activity of Pterocarpus marsupium roxb. on MSG obese albino mouse, Mus musculus</b></p> <p style="text-align: center;"><b>Dr. Priscilla Suresh</b><br/>Head and Assistant Professor, Department of Zoology,<br/>Bishop Heber College, Tiruchirappalli, Tamil Nadu, India</p> <p style="text-align: center;"><b>Abstract</b></p> <p>Obesity results from an imbalance between energy intake and energy expenditure in the body. It causes accumulation of fat in liver, metabolic disorders such as insulin resistance, hyperinsulinemia and type II diabetes. In this study, the MSG obese mice (Induced by Monosodium glutamate) gained nearly 65% of its body weight during the 60 days of the experiment and the control mice gained only 29.5% of its body weight. The MSG injected animals also showed a higher Lee index. The treatment with the P. marsupium distillate for 60 days had aided the obese mouse to regulate its blood glucose permanently. The treatment of the MSG obese mice with the heartwood of the P.marsupium crude extract had resulted in 66% of mortality in 120 days. The MSG obese animals have shown the typical hyperinsulinemia condition of type 2 diabetes. The results also confirm the occurrence of insulin resistance in them. MSG obese mice fed with the P.marsupium distillate, was found to reduce serum insulin to the level of the control mice. The development of large sized islets, which are also referred to as megaislets in the pancreas, was in line with the hyperinsulinemia. The administration of the crude and distilled extracts in the MSG obese mouse had regulated the formation of megaislets. The antihyperglycemic property of the extracts was one of the reasons for such blockage of the megaislet formation. It has also inhibited the pancreatic islets cell degeneration. The findings from the physiological, histological and endocrinological of this work had proved the antiobese potential of P. marsupium in MSG obese mice. As the distilled extract has no flavonoids the concern of toxicity is ruled out in distilled extract. The same effect can be confirmed in human with clinical trials.</p> <p><b>Keywords:</b> Endocrinological, Histological, Hyperinsulinemia, Lee Index, Megaislets.</p> |
| <p style="text-align: center;"><b>Jihye Baek</b><br/>GICICHL SR1803071</p>  | <p style="text-align: center;"><b>Fluorescence sensing of peracetic acid by oxidative cleavage of phenylselenyl ether of 4-hydroxynaphthalimide</b></p> <p style="text-align: center;"><b>Ji Hye Baek</b><br/>Department of Chemistry, Chung-Ang University, Seoul 06974, Republic of Korea</p> <p style="text-align: center;"><b>Eungyu Kang</b><br/>Department of Chemistry, Chung-Ang University, Seoul 06974, Republic of Korea</p> <p style="text-align: center;"><b>Da Bin Kim</b><br/>Department of Chemistry, Chung-Ang University, Seoul 06974, Republic of Korea</p>   |

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| <p style="text-align: center;"><b>Ka Young Park</b><br/>GICICHLRSR1803072</p> | <p style="text-align: center;"><b>A new Hg<sup>2+</sup>-selective colorimetric and fluorescent signaling probe and its practical applications</b></p> <p style="text-align: center;"><b>Ka Young Park</b><br/>Department of Chemistry, Chung-Ang University, Seoul 06974, Republic of Korea</p> <p style="text-align: center;"><b>Myung Gil Choi</b><br/>Department of Chemistry, Chung-Ang University, Seoul 06974, Republic of Korea</p> <p style="text-align: center;"><b>So Young Park</b><br/>Department of Chemistry, Chung-Ang University, Seoul 06974, Republic of Korea</p> <p style="text-align: center;"><b>Suk-Kyu Chang</b><br/>Department of Chemistry, Chung-Ang University, Seoul 06974, Republic of Korea</p> <p style="text-align: center;"><b>Abstract</b></p> <p>The development of probes for the selective signaling of environmentally hazardous metal ions has attracted growing research interest. In this research, a novel Hg<sup>2+</sup>-selective dual signaling probe based on resorufin-carbonothioate derivative has been developed. Signaling of Hg<sup>2+</sup> is crucial from both an industrial and ecological viewpoint due to the high impact of</p>  |

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|  | <p>this species on the environment. Designed probe 1 exhibited prominent color changes yellow to pink with turn-on type fluorescence signaling behavior toward only Hg<sup>2+</sup> ion. The signaling of probe 1 was due to the Hg<sup>2+</sup>-induced hydrolysis of the carbonothioate moiety to form its parent fluorescent dye. In addition, Hg<sup>2+</sup>-selective signaling was not affected by the presence of representative environmentally relevant metal ions. The detection limit of Hg<sup>2+</sup> ion was estimated to be <math>6.3 \times 10^{-7}</math> M (xxx ppb). Finally, using a wax-printed paper strip, the determination of Hg<sup>2+</sup> level in simulated wastewater was acquired.</p> <p><b>Keywords:</b> Hg<sup>2+</sup> ion, Dual signaling probe, Color changes, Fluorescence signaling, Environment</p> |
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