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5th International Conference on

Natural Products and Traditional Medicine

September 28, 2021 | Webinar



Hosting Organization: Pulsus

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Scientific Program

Scientific Program

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Opening Ceremony
09:00-09:10

September 28, 2021

Keynote Forum

09:10-09:50

Title: Busting the myth of frozen shoulders - is it just limiting the movement of joints of shoulders? An investigation of the trigger point issue on frozen shoulders

Fai Chan, Deli Aroma LLC, USA

09:50-10:30

Title: Anthroposophical foot massage

Sara Stara, Lotus di Sara Stara, Italy

Session Introduction

Sessions on: Natural Compounds | Complementary & Alternative Medicine

10:30-11:00

Title: NaturalMax Annatto Tocotrienol (*Bixa Orellana L.*): Brazilian production

Talita da Silva Ferreira, University of Salamanca, Spain

11:00-11:30

Title: Water, life and the way of healing

Franca Arcini Rubes, Poliambulatori San Rocco, Italy

Break 11:30-12:00

Session on: Natural products as anti-cancer agents | Natural Compounds

12:00-12:30

Title: Natural extractions and derived substances with anti-cancer activity

Fuad Fares, University of Haifa, Israel

12:30-13:00

Title: Influence of diets supplemented with naturally protected or unprotected eucalyptus oil on methane production and lactating buffalo productivity

Fawzy Mohamed Abo-Donia, Animal Production Research Institute (APRI), Egypt

E-Poster Presentation

Session on: Natural products as anti-cancer agents | Natural Compounds

13:00-13:20

Title: Antiproliferative effect of *Verbesina encelioides* and its isolated compounds against human breast cancer (MCF-7), liver cancer (HePG2), and colon cancer (HCT 116) cell lines

Mosa Nasser A Asiri, King Abdulaziz University, KSA

13:20-13:40	**Title: Nanoliposomes of supercritical carbon dioxide extract of small cardamom seeds: A potent hypocholesterolemic agent** **Paramita Bhattacharjee,** Jadavpur University, India
13:40-14:00	**Title: Getting soluble collagen from marine life as a cosmetic additive** **Anokhova V D,** IKBFU, Russia

Closing Ceremony



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Keynote Forum

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Fai Chan

Deli Aroma LLC, USA

Busting the myth of frozen shoulders - is it just limiting the movement of joints of shoulders? An investigation of the trigger point issue on frozen shoulders

Ever since the onset of Pandemic, many people are suffering frozen shoulders and coming to ask for help. Some have been with this issue for years and have already been under some treatment protocols, like by visiting chiropractors, massage therapists and physical therapists, acupuncturists. Practitioners usually treat this issue as pain and inflammation of shoulder joints. And, only work on that particular areas.

However, there is always a source that triggers pain and inflammation that leads to stiffness that limit the range of motion too. What is the source of this issue then? And, how to resolve this issue? And, the present system favors using the cold pack to numb the pain/inflammation. However, pain and inflammation will come back after a while. Is it a more long lasting method that can help relieve the pain/inflammation that brings more soothing experience?

In this speech, some techniques and topicals will be examined in an attempt to bring more potent results. Also, are there preconditions that can easily lead to frozen shoulders? That is a big question to be answered, and some jobs are more at risk of having the issue.

If you work directly on shoulder joints and find this only temporary, it is time to give a second thought on what can bring a better treatment results. Since this is based on my limited work on some patients but the treatment results are 100% effective. After twice to three times of the treatments, they all can sustain the results by self caring with some protocols themselves… that said, only once to twice visits are necessary a year.

Therefore, more research are needed for more detailing of this treatment protocols. Anyway, with this safe and effective protocol, people who are suffering frozen shoulders will benefit.

Biography

Clinical Aromatherapist Fai Chan started her career in 2014, when she was a student, she already published research findings with international Aromatherapy journals. In 2015, she served the board of a world leading aromatherapy association (Alliance of International Aromatherapists). She was also the chair of the publication committee.

Deli Aroma LLC is dedicated to holistic healing protocols and research. Grounded by pharmacology, her specialties are in the healing of psychiatric/ neurological issues such as Alzheimer's and diabetes/rheumatoid arthritis, pneumonia, apnea, severe insomnia, anti aging etc. Based on Traditional Chinese Medicine (TCM) framework, with the synergistic effects of combining the therapeutic approach with chemistry, her remedies are very effective.

From 2019, she started to give seminars, speeches in international conferences. She also has a clinic that do treatments of diseases of different kinds. She also published articles with some international leading Journals.

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Sara Stara

Lotus di Sara Stara, Italy

Anthroposophical foot massage

In the sixth conference held in Prague on March 26th 1911, Rudolf Steiner staded:

"Man, in his organization is defined by his skin(…) If in the skin itself, the organism can be expressed in this way, it must be assumed that in it in must somehow find the whole man.

If in fact man must be configured in such a way that the skin, as a formal delimitation expresses what it is, in the skin itself must be all that is part of the overall human organization (…)

We have seen first of all that man in His entirety, presented to us on earth, has in his blood system the instrument of his own self.

Man is such because his contains an inner self expressed until the physical system and uses blood as its own instrument. I am a plantar reflexologist and in the moment I read this writing I understood that the awakening of consciousness could take place throw the foot.

I began to study the meaning of what in the science of the Anthroposophical Spirit is meant as a physical organ, or better as physical expression of an organ and I started reproducing it on the foot by creating an Anthroposophical foot map. As stated by Rudolf Stainer, the Science of the Spirit is not, in any way, a mystical or philosophical path, but only a scientific one.

Therefore the Science of the Spirit is an active way to consciousness using the development of the thinking activity to meditation, concentration, and other appropriate exercise to think, feel and will.

The Anthroposophic treatment of the foot allow you to experience a very deep peacefulness accompanied by a great sensory experience that guides, through the body, the individual towards apart of brough and improvement.

Biography

Mine is a path of personal growth that in many years has helped so many people to discover themselves. I am an plantar reflexologist, naturopath and researcher. passionate about esotericism and popular medicines Anthroposophical Podalic treatment is what comes from continuous research and what emerges from experiences with clients and in training courses. It is part of what I receive from the night spirits and in meditation, in daily and professional life. I bow with a smile to the evolutionary forces that guide mankind, Sara.

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Scientific Tracks & Abstracts

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Sessions

Natural Compounds | Complementary & Alternative Medicine

Session Introduction

Title: **NaturalMax Annatto Tocotrienol (*Bixa Orellana L.*): Brazilian production**

Talita da Silva Ferreira, University of Salamanca, Spain

Title: **Water, life and the way of healing**

Franca Arcini Rubes, Poliambulatori San Rocco, Italy

NaturalMax Annatto Tocotrienol (*Bixa Orellana L.*): Brazilian production

Talita da Silva Ferreira
University of Salamanca, Spain

New Max Industrial is the first Brazilian company to separate Tocotrienol from Annatto (*Bixa orellana L.*). New Max Industrial manufactures the product NaturalMax Annatto Tocotrienol™ Oil 70%, extracted from annatto seeds, with greater antioxidant power (gamma and delta-tocotrienol). New Max Industrial Ltda controls from planting the Annatto seeds to the manufacturing of the tocotrienol ingredient. The whole process of planting and manufacturing takes place in the Brazilian territory. The raw material production starts with the planting of the seeds on New Max's farm, harvesting and drying the seeds for the production of the raw material. The tocotrienol is produced from the manufacture of the natural urucum dye. Thus, after centrifuging and heating the dye, the tocotrienol oil is extracted. The product is distilled so that it contains at least 70% total tocotrienols, 84-92% delta-tocotrienol, 8-16% gamma-tocotrienol, and a maximum of 1% tocopherols. NaturalMax Annatto Tocotrienol™ Oil 70% is a natural product obtained from annatto seeds (*Bixa orellana L.*) It is manufactured by ecofriendly green chemistry procedures from Annatto seeds being fractionated without use of organic solvents, containing its isoform with the highest antioxidant activity (δ-tocotrienol) at a ratio of approximately 90%. NaturalMax Annatto Tocotrienol™ Oil 70%, tocotrienol from annatto seeds, is an innovative ingredient that is demonstrated according to regulatory requirements and can be applied in dietary supplements, cosmetics, and pharmaceutical products.

Biography

Pharmacist with more than 15 years of experience in Regulatory Affairs in pharmaceutical companies in B2B and B2C markets. Master's degree in Entrepreneurship at FEA-USP and Ph.D.'s Degree in progress in Business Economy at the University of Salamanca. Regulatory Consultant at Legis Consultoria and Manager Development at New Max Industrial. Specialist in Management of regulatory knowledge for the excellence of internal and external processes and Business Strategy to expand to other markets.

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Water, life and the way of healing

Franca Arcini Rubes
Poliambulatori San Rocco, Italy

Water, vital element and therapeutic element applicable in different fields of complementary medicine.

Presentation of experiences and results

Water, composition and different types of water

Water in food and fasting

Water spiritual element and symbolism

Water as a medicine and as a vehicle for information

Water and traditional Chinese medicine

Water, meditation and the unconscious

Water and prayer, the sacred waters in the world

Water and musical frequencies

Water and Reiki

Water, counseling and coaching.

Biography

I am a Naturopath, a Counselor, a Coach, an Emotional Deprogrammer, a Flower Therapist, a Mindfulness Facilitator, a Food Consultant, a multiple Reiki Master.

I have a holistic view of man as a total union of mind, body and spirit. These three aspects are in continuous relationship with each other and when they are in a state of imbalance they can generate discomfort and disturbances. My attention is mainly focused on the person and not on the symptoms of any disorder with the aim of helping them, accompanying them on a path of awareness to find the compromised balance with the aim of achieving a state of psycho-physical well-being.

In my studio people find the welcome and warmth necessary to make them feel they have arrived in a comfortable and safe place to find themselves.

I create paths for people who are ready to take their life in hand. I have helped over 500 to get well.

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Sessions

Natural products as anti-cancer agents | Natural Compounds

Session Introduction

Title: **Natural extractions and derived substances with anti-cancer activity**

Fuad Fares, University of Haifa, Israel

Title: **Influence of diets supplemented with naturally protected or unprotected eucalyptus oil on methane production and lactating buffalo productivity**

Fawzy Mohamed Abo-Donia, Animal Production Research Institute (APRI), Egypt

Natural extractions and derived substances with anti-cancer activity

Fuad Fares
University of Haifa, Israel

The main goal of the present study is to elucidate the beneficial effects of natural extracts from medicinal mushrooms and plants and indole derivatives on growth of human cancer cells. The efficacy of the extracts and compounds on cell growth were tested on human cancer cells originated from; pancreatic, colorectal, breast, prostate, ovary and head and neck cancer in vitro. Moreover, the effect of the componds and extracts on tumor formation were tested in animal models.

The results indicated that all factors are safe and inhibit proliferation and induced cell cycle arrest and apoptosis in vitro. Gene expression analysis indicated that the induction of apoptosis was p53-independent and it was through caspase activation and the mitochondrial pathway by releasing cytochrom C and activation of capase 9 followed by activation of caspase 3 and inhibition of PARP. In vivo studies using xenograft models indicated that treatment of animals with these facors caused a significant deceleration in the volumes and weights of tumors. This effect was found to be mediated by inducing apoptosis as it was detected by morphological and staining studies. Moreover, pre-treatment of animals with the pre-apoptotic facor, indole derivative, for five weeks before transplanting the cells, significantly reduced tumor development as compared to controls. Tumors were developed in ~80% of controls and ~20% of treated animals. The tumors developed in treated animals were significantly (p□0.01) smaller than that developed in controls. These results indicated that natural extracts have no effect on animal weight and liver or kidney functions. The findings of the present study indicated that these agents are not toxic and may prevent tumor development. Thus, it appears that natural derivatives induced apoptosis in human cancer cells and it may offer an effective and non-toxic anti-tumorigenic compounds in humans.

Biography

Fuad Fares has completed his M.Sc. and D.Sc studies at the Faculty of Medicine, Technion-Israel Institute of Technology, and a postdoctoral studies at the Department of Molecular Biology and Pharmacology, School of Medicine, Washington University, St. Louis Missouri. During his studies he developed a long acting human follitropin (FSH). This hormone was approved by the European Commission as “ELONVA” for clinical use. He is the founder and the initiator of PROLOR Biotech Start-Up Company for "designing long-acting recombinant proteins". He is the founder of CanCuRx start up company for treatment of cancer. He has published more than 100 manuscripts in reputed journals, 17 patents and served as a member of the Israel Council for Higher Education for 15 years. He is a Full Professor at the Department of Human Biology, Faculty of Natural Sciences, University of Haifa, Haifa, Israel.

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Influence of diets supplemented with naturally protected or unprotected eucalyptus oil on methane production and lactating buffalo productivity

Fawzy Mohamed Abo-Donia
Animal Production Research Institute (APRI), Egypt

This study was designed to investigate the influence of naturally protected eucalyptus oil supplementation in a form of leaves (EUL) or mature seed capsules (EUS) compared to crude eucalyptus oil (EUO). The control group (G1) received a diet containing concentrate feed mixture, fresh berseem, rice straw, and corn silage. Whereas the G2, G3, and G4 animals have a diet supplemented with 200 g/head/day of EUL or EUS or 4 mL/head/day EUO, respectively. Supplementation of EUL or EUS increased NH3-N, SCFA's, and concentrations of acetic acid in-vitro. Bacterial total count, protozoa, and cellulolytic bacteria increased ($P < 0.05$) with EUL and EUS supplementation. Methane production dropped ($P < 0.05$) with EUS, EUL, and EUO supplementation. Milk fat decreased ($P < 0.05$) with EUO supplementation, while an adverse trend was shown for lactose. No differences in feed conversion were found among EUS, EUL, and EUO. Blood total protein, albumin, and urea increased ($P <0.05$) with supplementation of EUL or EUS compared to EUO. EUO supplementation yielded increased ($P < 0.05$) AST, ALT, glucose, and creatinine. Supplementation with EUL, EUS, or EUO decreased ($P < 0.05$) DM, OM, and CP digestibility. While digestibility of EE with supplementation by EUL, EUS, or EUO was higher ($P < 0.05$). The digestion coefficient of NDF and ADF decreased ($P < 0.05$) with supplemental EUL, EUS, or EUO compared to the G1 diet. Feeding EUS increased the values of TDN and DCP compared to EUL, which increased than EUO. Our results confirm that the naturally protected form of leaves or seeds mitigates the undesirable effects of directly supplementing crude eucalyptus oil.

Biography

Fawzy Abo-Donia, Head of Agric. By-product Utilization Res. Dept., (APRI), Manager of the non-traditional fodder project, (APRI), Director of Animal Production Research Institute (APRI). Primary research interests focus on ruminant nutrition, in particular, rumen degradability, methanogenesis, rumen fatty acid metabolism, during periods of negative energy balance. Feed evaluation, digestive physiology, and nutrition of dairy cows. Using non-traditional sources of protein and additives to optimize rumen microorganisms. Factors are affecting the efficiency of nutrient utilization in ruminants.

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e-Poster

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Antiproliferative effect of *Verbesina encelioides* and its isolated compounds against human breast cancer (MCF-7), liver cancer (HePG2), and colon cancer (HCT 116) cell lines

Mosa Nasser A Asiri
King Abdulaziz University, KSA

Beta amyrin acetate (1) Taraxasterol acetate (2), Pseudotaraxasterol acetate (3), Linoleic acid (4), besides the total extract (T.E) derived from Verbesina encelioides, were tested for anticancer efficacy against MCF-7 (breast adenocarcinoma), HepG2 (hepatocellular carcinoma) and HCT-16 (colorectal adenocarcinoma) human cancer cell lines. According to this investigation, the SRB assay used to investigate in vitro cytotoxic effects of the compounds against the tumor cell lines MCF-7, HepG2, and HCT 116 over a concentration range of 0.01 to 1000 µg/ml. The extracts investigated exhibited a wide range of cytotoxic activities against cancer cells. The compound 4 has the highest antitumor activity against MCF-7, HePG2, and HCT116, with IC50s of 34.5± 3.3, 32.5 ±0.7, and 17.1± 2.7 µg / mL, respectively, whereas the compound 3 has a moderate effect on three cancer cells, with IC50s of 49.3 ± 3.2, 53.1± 4.3, and 47.4 ± 1.9 µg / mL, respectively. With IC50s ranging from 66.3 ±1.4 to 70.6 ±1.8 µg / mL, the compounds 1&2 had a modest killing effect on cancer cells. The compound 1 was more effective versus colon cancer (HCT 116) with 51.5 ± 2.9 µg / mL), whereas the compound 2 had a moderate effect on breast cancer (with 52.5± 3.3 µg / mL). Furthermore, the total extract (T.E) has a weak toxic effect on the cancer cells with IC50s greater than 100 µg / mL.

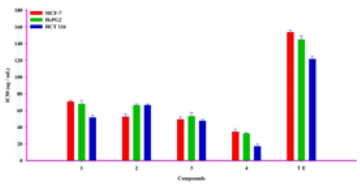


Figure 1: Compounds IC50s values after treatment of different human cancer cell lines (MCF-7, HePG2, and HCT 116).

Compounds	IC_{50} (µg)		
	MCF-7	HePG2	HCT 116
1	70.6 ± 1.8	67.7 ± 4.6	51.5 ± 2.9
2	52.5 ± 3.3	67.5 ± 1.8	66.3 ± 1.4
3	49.3 ± 3.2	53.1 ± 4.3	47.4 ± 1.9
4	34.5 ± 3.3	32.5 ± 0.7	17.1 ± 2.7
Total Extract	153.6 ± 2.4	144.9 ± 4.4	121.5 ± 3.3

Table 1: The IC_{50} (µg) of Compounds against different human solid tumor cells (Data is presented as mean ± S).

Biography

Mosa Nasser A Asiri, is a master student who currently is pursuing his graduate studies in Natural products and alternative medicine at King Abdulaziz University in Saudi Arabia.

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Accepted Abstracts

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Computational Biology: An efficient tool for validating mechanism of action of natural products

Nicholas F Fazio[1], Michael H Russell[2]
[1]Stony Brook University, USA
[2]Virginia Commonwealth University, USA

Statement of Problem: Natural products are an important source of lead molecules in drug discovery and have successfully been developed into drug treatments. Often the pharmacological utility of natural products is learned from traditional medicine, but connecting biological activity with the mechanism of action can be a challenge with natural products, especially since many bear polypharmacology. Methodology: Crystal structures of proteins, identified by both X-ray crystallography and SWISS computational prediction models give regions of interest (ROI). Using computational modeling to screen a virtual natural product library for compounds that bind the ROI we can confirm mechanisms of action of natural products. Findings: Here we will illustrate how this method produced natural molecule inhibitors of the PIM3 and Tryptase proteins that were then validated at low micromolar potency through benchtop assays. Conclusion: Small molecule inhibitors have been shown to have great effect as therapeutics. As more drug targets are discovered the use of computational modeling and large natural product libraries can allow researchers to quickly identify lead molecules in drug discovery efforts.

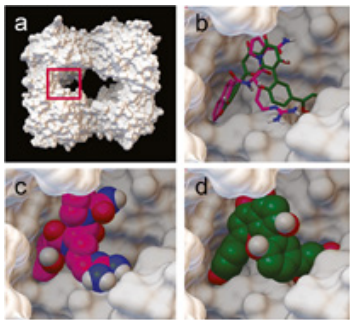


Figure: Computational fit of APC366 (synthetic inhibitor) and amentoflavone in the tryptase S4 pocket. a Location of the S4 pocket in the tryptase tetramer. b Overlaid docking models of APC366 (pink) and amentoflavone (green) in the S4 pocket. Computational models of APC366 (c) and amentoflavone (d) binding in the S4 pocket.

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Insights and innovations in public health

Aysha Abdulkadir Haruna
Nutonic Corp, Nigeria

Innovation continues to be critical to tackle diseases without known cures and to help increase uptake and adherence to interventions that work.

As part of the report Prioritizing health: A prescription for prosperity, the McKinsey Global Institute identified ten promising innovations, now in progress, that could have a material impact on health by 2040. Focusing on technologies that address the greatest unmet needs, we determined the impact of these innovations by interviewing experts and evaluating the current biological understanding of each disease, as well as the effort and excitement surrounding the new techniques as measured by funding.

Identifying and sizing the potential scope of innovations now in the pipeline is inherently difficult, but we estimate that these technologies could reduce the burden of disease by a further 6 to 10 percent, assuming aspirational yet realistic adoption rates by 2040 on top of the 40 percent from known interventions. Some of these innovations could not only fully cure a number of diseases but also significantly extend healthy lifespans by tackling the underlying biology of aging and therefore postponing the onset of several age-related conditions. These possibilities make a sharp contrast with the innovations of the past 30 years, many of which reduced the symptoms or delayed the progression of diseases but rarely prevented or cured them. In addition, the innovations we have identified here are more digitally enabled than those of the past; for example, artificial intelligence (AI) systems make advances in omics and molecular technologies, such as gene editing, faster and more accurate.

How can we improve public health globally over the next two decades...??

1) Omics and molecular technologies. Example: CRISPR and curbing malaria
2) Next-generation pharmaceuticals. Example: Senolytics and the regulation of cellular aging
3) Cellular therapy and regenerative medicine. Example: CAR T-cell therapy and the treatment of solid tumors
4) Innovative vaccines. Example: The AT04A vaccine and the lowering of cholesterol
5) Advanced surgical procedures. Example: Suspended animation for severe-trauma patients
6) Connected and cognitive devices. Example: E-tattoos for heart diagnostics
7) Electroceuticals.Example: Implantable microchips to mitigate chronic pain
8) Robotics and prosthetics. Example: Next-generation exoskeletons and mobility support
9) Digital therapeutics.Example: An AI-powered app to change behavior
10) Tech-enabled care delivery. Example: Multichannel care delivery.



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Cardioprotective potential of *Cleistopholis Patens* ethanolic root bark extract on doxorubicin-induced myocardial infarction in wistar rats

Chidinma Pamela Ononiwu
University of Nigeria, Nigeria

Statement of the Problem: Myocardial Infarction still persists as the most prevalent cardiovascular disease and is the leading cause of morbidity and mortality in doxorubicin treated cancer patients. This study evaluated the prophylactic effect of the ethanolic root bark extract of Cleistopholis patens against doxorubicin-induced myocardial infarction in wistar strains of albino rats.

Methodology: The experimental animals were randomly divided into six groups of five animals each. Groups I, II and III served as normal, DOX and standard (Vasoprin 150 mg/kgbw) controls respectively, while groups IV, V and VI were orally treated with the extract (200, 400 and 600 mg/kgbw) once daily for two weeks prior to intraperitoneal induction of cardiotoxicity with doxorubicin (20 mg/kgbw) on day 14. Disturbances in serum cardiac function markers (Troponin-I, Creatine Kinase, Lactate Dehydrogenase) and lipid profile markers (Total cholesterol, Triacylglycerol, Low Density Lipoprotein, High Density Lipoprotein) confirmed the induction of myocardial infarction. Histopathological analysis was performed to validate biochemical results.

Findings: There were significant ($p < 0.05$) alterations in the activities of CK, LDH and levels of Troponin-I, TC, TAG, LDL, HDL in the DOX control rats compared to the normal control. However, administration of the extract significantly ($p < 0.05$) normalized these alterations and reversed the architectural changes in the heart.

Conclusion: The ethanolic root bark extract of Cleistopholis patens possess promising cardioprotective potential. It can be subjected to further research so as to isolate lead compounds that can be used to develop novel therapeutic agents for ameliorating cardiac health burdens.

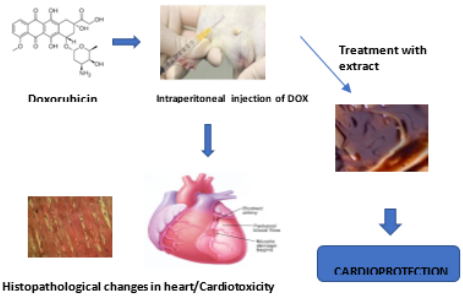


Figure 1: Graphical Abstract

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Conferences By Destination

Australia	Indonesia	South Korea
Austria	Italy	Spain
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France	Norway	USA
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Hong Kong	Poland	
India	Singapore	

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Cardiology	Gynecology & Women's Health	Nursing	Psychiatry
Chemical Engineering	Healthcare	Nutrition	Pulmonology
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