# 2272<sup>nd</sup> Conference



International Conference on

GASTROINTESTINAL CANCER AND THERAPEUTICS &

4<sup>th</sup> World Congress on

DIGESTIVE & METABOLIC DISEASES &

26<sup>th</sup> Annual Congress on

**CANCER SCIENCE AND TARGETED THERAPIES** 

October 29-30, 2018 | San Francisco, USA

# Scientific Tracks & Abstracts

Day 1

October 29-30, 2018 | San Francisco, USA

### Innovative immunotherapies to treat cancers

Chien-Fu Hung Johns Hopkins University, USA

re report the development of anti-human mesothelin mRNA chimeric antigen receptor transfected peripheral blood lymphocytes (CARMA-hMeso), demonstrating the manufacture and cryopreservation of multiple cell aliquots for repeat administration from a single human leukapheresis. We show that CARMA-hMeso cells recognize and lyse tumor cells in a mesothelin-specific manner. Expression of CAR was detectable over approximately 7 days in vitro with a progressive decline of CAR expression that appears to correlate with *in vitro* cell expansion. In a murine ovarian cancer model, a single intra-peritoneal (IP) injection of CARMA-hMeso resulted in the dose-dependent inhibition of tumor growth and improved the survival of mice. Furthermore, repeat weekly IP administrations of the optimal CARMA-hMeso dose further prolonged disease control and survival. No significant off-target toxicities were observed. These data support further investigation of CARMA-hMeso as a potential treatment for ovarian cancer and other solid mesothelin-expressing cancers1. In additional, we have successfully developed a strategy to specifically target a therapeutic chimeric protein to tumor loci, which elicits potent tumor-targeted killing through antigen-specific CD8+ immune responses. This strategy may provide a platform for the delivery various anti-cancer molecules to the tumor loci as well as for coating tumor cells to circumvent immune tolerance in order to generate therapeutic antitumor effects<sup>2</sup>.

### **Biography**

Chien-Fu Hung is an associate professor of pathology and oncology and a professor of gynecology and obstetrics at the Johns Hopkins University School of Medicine. He is a member of the Johns Hopkins Kimmel Cancer Center. His research focuses on the prevention and treatment of cervical and ovarian cancers.

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Role of exercise-induced myokine and autophagy in metabolic diseases through the regulation of microRNAs

Ning Chen Wuhan Sports University, China

As is well known, Exercise is Medicine. Indeed, exercise is an effective, green and environmentally-friendly intervention strategy for metabolic diseases such as obesity and diabetes. Irisin, as a newly discovered myokine with 112 amino acid residues after exercise training, is firstly up-regulated by exercise or corresponding drug-induced PGC-1a and plays an important regulatory role in a series of metabolic diseases through targeting different tissues or organs, especially for its functions of switching white fat cells to brown fat cells, thus resulting in the prevention and recovery of obesity and diabetes through regulating microRNA-mediated autophagy upon exercise intervention. In addition, exercise or drug-induced irisin also can regulate the UCP1 generation, improve insulin sensitivity and enhancing  $\beta$ -cell regeneration, which can function as the modulator for the prevention and treatments of a series of metabolic diseases including diabetes and obesity. Moreover, exercise-induced irisin can improve cognition capacity during neuro degradative diseases. All of these investigations will provide a clear target for the prevention and treatment of metabolic diseases through microRNA-mediated autophagy and myokines. Furthermore, this exploration will provide a new strategy for developing a novel and effective candidate drug or supplementary dietary as well as mimic exercise pills for the prevention and treatment of metabolic diseases.

### **Biography**

Ning Chen has completed his PhD from Georgia State University in the USA. He is a Chutian Scholar Distinguished Professor in Biochemistry and Molecular Exercise Physiology in College of Health at Wuhan Sports University in China. He is also the director of Tianjiu Research and Development Centre for Exercise Nutrition and Foods and the director of Hubei Key Laboratory of Sports Training and Monitoring at Wuhan Sports University. He has published more than 50 papers in reputed journals and has been serving as the editorial board member of several international journals.

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October 29-30, 2018 | San Francisco, USA

### Therapeutic vulnerabilities in ARID1A-deficient cancer

**Guang Peng** 

University of Texas MD Anderson Cancer Center, USA

RID1A is a component of an evolutionarily conserved chromatin remodeling complex SWI/SNF. Recent genomic data  $\Lambda$ revealed that ARID1A is one of the most frequently mutated genes in a wide spectrum of human cancers. However ARID1A gene itself is not an ideal drug candidate because the majority of ARID1A mutations are inactivating leading to loss of ARID1A expression and ARID1A-SWI/SNF is important for maintaining normal cellular processes. Therefore, a key question is to identify druggable molecular consequences induced by ARID1A deficiency, which can create therapeutic vulnerabilities in ARID1A-mutant tumors. To answer this question, we conducted proteomic analysis of The Cancer Genome Atlas (TCGA) and found that ARID1A deficiency leads to increased expression and activation of DNA damage checkpoint kinase CHK2. Our studies demonstrate a chromatin-independent function of ARID1A in regulating ubiquitination process and indicate that CHK1/2 inhibitors can be an effective therapeutic option specifically targeting ARID1A-deficient human cancers. Most recently, we conducted mutation spectrum analyses of TCGA datasets further revealed enrichment of ARID1A mutations in tumors with a microsatellite instability (MSI) genomic signature and a predominant C>T mutation pattern and significantly increased mutation load in ARID1A-mutant tumors across multiple cancer lineages, supporting ARID1A loss as contributing to defective MMR. Moreover, we found that ARID1A depletion conferred an aggressive tumor phenotype and an increased mutation load. Notably, treatment with anti-PD-L1 antibody reduced tumor burden and prolonged survival of mice bearing ARID1A-deficient but not ARID1A-wild-type tumors.

### **Biography**

Guang Peng is an associate professor in the Department of Clinical Cancer Prevention at The University of Texas MD Anderson Cancer Center. The long-term goal of her research is to characterize and target molecular regulators of the mutational and dysfunctional DNA repair processes driving tumor evolvability and immune responses. One of her major interests is to study the role of ARID1A, one of the most frequenct mutated genes in human cancer, in regulating DNA damage response and DNA repair. Her research has been funded by several agents including National Cancer Institute (NIH), Department of Defense, American Association for Cancer Research, Susan Komen Foundation and Cancer Prevention Research Institute of Texas.

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### Anabolics in the diagnosis and treatment of cardiovascular disease

**Edward Lichten** 

Wayne State University School of Medicine, USA

Nardiovascular Disease (CVD) includes atherosclerosis, coronary artery disease, myocardial infarction, and congestive heart disease. CVD is the cause of death of 50% of men usually 10-years earlier than that for women. Men have lower levels of testosterone when they suffer a heart attack, when they are found to have atherosclerosis, and when diagnosed with congestive heart failure. This is Gender-Specific Medicine, related to the man's key hormone, testosterone. Recent research finds that the addition of estradiol to men with a heart attack will lead to death in half in two years. Testosterone is good and antiinflammatory. Estrogen is inflammatory and higher levels are potentially fatal for men. Endocrine disrupting chemicals (EDCs) act as manmade estrogens; observations of disruption of the Hypothalamic-Pituitary-Gonadal axis leads to lower serum total and bioavailable testosterone. With decreased levels of bioavailable testosterone, the Androgen and Estrogen Receptors are more saturated with xeno- and estrogens. Estrogens being inflammatory lead to cardiovascular diseases: biomarkers include the Free Androgen Index (FAI) and the Estrogen Receptor-beta/Estrogen Receptor-alpha. Five anabolic steroids are able to reverse the falling FAI and men experience not only the reversal of disease, reduction of the inflammatory biomarkers increase in ejection fraction and other improvements in the quality of life. Case reports include two patients who were able to avoid heart transplant and one elected not to use a heart assist device. Anabolic therapy is the physicians alternate to succumbing to environmental toxins, inflammation, disease, morbidity, and increased mortality.

### **Biography**

Edward Lichten is an obstetrician-gynecologist in Birmingham, Michigan and is affiliated with multiple hospitals in the area, including DMC Huron Valley-Sinai Hospital and Providence-Providence Park Hospitals. He received his medical degree from The Ohio State University College of Medicine and has been in practice for more than 20 years. He is one of 39 doctors at DMC Huron Valley-Sinai Hospital and one of 73 at Providence-Providence Park Hospitals who specialize in Obstetrics and Gynecology.

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### Multimodality imaging of the diagnostic patient: The efficacy of diagnostic imaging

Tanya W Moseley

University of Texas MD Anderson Cancer Center, USA

In this presentation, Dr Moseley considers the work of Fryback and Thornbury and challenges radiologists to rethink their contribution to diagnostic workup of patients. She uses Fryback and Thornbury's hierarchal model of efficacy to shed new light on the technical quality of images; the interpretation of imaging with regards to diagnostic accuracy, sensitivity, and specificity; diagnostic thinking; patient care management planning; patient outcomes; and societal costs and benefits.

### **Biography**

Tanya W Moseley, MD has distinguished herself as a top-notch radiologist, clinician, educator, researcher, and leader in her field. She is a world-class teacher of undergraduates, residents, fellows, medical students, and breast imaging technologists. She has supervised and trained numerous visiting scientists, residents, and fellows over the past 20 years. She is a former Fellowship Director of Breast Imaging and developed an outstanding Breast Ultrasound Course at MD Anderson Cancer Center in Houston, Texas. In 2017 she received the University of Texas Regents' Outstanding Teaching Award. She is the past Breast Section Program Chair and Breast Section Course Director of the American Roentgen Ray Society (ARRS) Case-Based Imaging Review Breast Section. She lectures all over the world and is known for simplifying the complex. She received her Dotorate of Medicine with Honors at the University of Iowa College of Medicine in lowa City, Iowa. She entered a Clinical Fellowship in Diagnostic Radiology at the Mayo Clinic Graduate School of Medicine in Rochester, Minnesota, and continued on at the Mayo Clinic in a Clinical Fellowship in Mammography and Thoracic Imaging. After completing her fellowship, she joined Mayo Clinic as a Senior Associate Consultant, and then joined the Division of Diagnostic Imaging at MD Anderson Cancer Center. She is presently a Professor of Diagnostic Radiology and Breast Surgical Oncology at MD Anderson.

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October 29-30, 2018 | San Francisco, USA

### NASH: The increasing trend among the causes of liver cirrhosis

Ayfer Serin

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hile the global prevalence of liver cirrhosis is not exactly known, the prevalence in the United States is found to be in 0.15% to 0.27% of the population. Approximately 25% of the population of countries such as England, France, Italy, Spain, and Finland is categorized as obese, and people diagnosed with type 2 diabetes and non-alcoholic fatty liver disease (NAFLD), as well as other diseases resulting from metabolic syndrome, are increasing in frequency with time. Tento-15% of NAFLD patients develop inflammation and fibrosis, which may eventually progress to cirrhosis and hepatocellular carcinoma (HCC). Liver cirrhosis is an important cause of morbidity and mortality in the United States. The curative treatment for liver cirrhosis is liver transplantation. Since 2004, our center has seen an increase in the proportion of non-alcoholic steatohepatitis(NASH)-related liver cirrhosis transplant recipients compared to patients with etiological causes. This implies an increase in the incidence of NASH and NASH-related diseases, including HCC in our population. While in 2009 NASHrelated liver cirrhosis patients comprised 4% of the total transplant recipients at our center, in 2017 this rate has risen up to 20%. Together with this 5-fold increase, the patients with other primary etiologies of liver cirrhosis, such as hepatitis B, C, and autoimmune hepatitis, have been found to have relatively high HOMA-IR index values, showing the presence of a metabolic disorder in these patients. At the same time, the mean average BMI of the transplant patients has increased over the years. Unfavorable developments in modern nutrition are thought to play a role in the impairment of normal metabolism and deterioration of condition in such patients. Independently of the etiology, detection and prevention of underlying metabolic disorders are important in end-stage liver cirrhosis patients.

### **Biography**

Ayfer Serin, Internal Medicine Specialist and Gastroenterologist, has graduated from Trakya University School of Medicine in 1995. Between 1998 and 2002 she has completed the residency in gastroenterology at Dokuz Eylul University, and as a specialist gastroenterologist between 2006 and 2011 in several leading government and university hospitals in Turkey. From 2011 and 2016 she has worked as a faculty physician at Ege University School of Medicine. In 2014, she gained experience as an observer at Johns Hopkins University Hospital, Liver Transplantation Department. Since 2016, she has been working at Şişli Florence Nigthingale Hospital Liver Transplantation Unit as a staff gastroenterologist and hepatologist. Her primary interests include liver diseases, viral hepatitis B and C diseases, liver cirrhosis, liver neoplasms, NASH, liver tranplantation, living-donor evaluation, preparation, and treatment.

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### The role of microbiome perturbations in colorectal cancer: Diagnostic, therapeutic or both?

Manasi S Shah

University of Texas School of Public Health, USA

There is encouraging evidence for using a stool-based composite microbial non-invasive diagnostic for colorectal cancer. Through our meta-analysis, we analyzed eight global cohorts, re-analyzing the raw 16S rRNA gene sequencing data to find consistent biomarkers such as *Parvimonas micra, Fusobacterium* sp. and *Streptococcus anginosus* robust to demographic and technical heterogeneity across the studies. We further evaluated which microbial markers in colorectal cancer tissue biopsy, directly at the disease interface were consistently elevated across cohorts, the extent to which they were detectable in fecal samples from the same colorectal cancer case and the pathways through which they might operate. We noticed OTUs elongated to genus *Parvimonas, Fusobacterium* and *Streptococcus* elevated in biopsies as well. Inferred functional analysis identified differences in amino acid and lipid metabolism, likely driven by the altered abundances of *Fusobacterium, Leptotrichia, Enterobacteriaceae, Comamonadaceae and Ruminococcaceae*. While promising, to be truly generalizable for the public, a microbial diagnostic for colorectal cancer must overcome challenges in terms of confounding the microbial signal by other co-existing morbidities such obesity, type-2 diabetes, and IBD or the intake of over-the-counter or prescribed medications which is known to influence the gut microbial content. Along with diagnostic avenues, *in vivo* studies have characterized Wnt- $\beta$ -catenin signaling cross-talks with microbial communities and host immune system and can be causal in inflammation-driven colorectal cancer. Recent studies have demonstrated that the immune-modulator effectiveness of CTLA-4 and PD-PDL1 based therapy is microbiota dependent and lays ground to prove the utility of microbiome modulated immunotherapy for all cancers.

### **Biography**

Manasi S Shah has completed her PhD from the University of Texas School of Public Health. She then worked briefly with Second Genome Inc., as a consultant and is a current postdoctoral study from Stanford University School of Medicine. Currently working as a Staff Bioinformatics Scientist at Thermo Fisher Scientific, Manasi has authored a couple of microbiomes focused papers and is currently working on a grant award she received to improve the Axiom microbiome array capabilities.

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### Epigenetic regulation of calcium-sensing receptor and its impact in colorectal tumorigenesis

Irfete S Fetahu Brigham and Women's Hospital, USA

Numerous studies have associated intake of sufficient amounts of calcium with reduced risk of colorectal cancer (CRC). The antiproliferative and prodifferentiating effects of calcium in colonocytes are suggested to be mediated, at least in part, by the extracellular calcium-sensing receptor (CaSR). Expression of the CaSR in CRC is downregulated. We investigated whether loss of the CaSR expression in CRC is caused by DNA hypermethylation, imbalance of transcriptionally permissive/repressive histone alterations, and aberrancies in microRNA expression.

RNA expression of the CaSR in 65 colorectal tumors and their adjacent mucosae from the same patients, and colon tumor cell lines was measured by real time qRT-PCR. The CaSR protein levels were determined by immunofluorescence. Methylation levels of the CaSR promoter were assessed by pyro- and bisulfite-sequencing. Chromatin immunoprecipitation was employed to determine the abundance of the histone marks H3K4me2 and H3K9ac bound to the CaSR promoter. Microarray study identifed 22 differentially expressed microRNAs that potentially target the CaSR. These results were validated by performing gain- and loss-of-function studies in various CRC lines with the top microRNA candidates: miR-9, miR-27a, miR-135b, and miR-146b.

Silencing of the CaSR expression in colorectal cancer is dependent on various epigenetic layers, including CaSR promoter 2 hypermethylation and H3K9 deacetylation. Additionally, we demonstrated that overexpression of miR-135b-5p and miR-146b-5p is associated with the loss of CaSR expression in colorectal tumors. Regulation of CaSR expression by epigenetic mechanisms is of crucial importance, providing a platform for developing new and better approaches for colorectal treatment.

### **Biography**

Irfete S Fetahu received her PhD at the Medical University of Vienna (Austria) under the supervision of Prof. Enikö Kallay as a Marie Curie Early Stage Researcher. During this time she was the recipient of several national and international awards, including fellowships from the European Association for Cancer Research and the Federation of European Biochemical Societies. She was a board member of the Young Scientist Association of the Medical University of Vienna. Following her PhD graduation, she started her postdoctoral fellowship at the Harvard Medical School (USA), where she is currently working in uncovering the aberrancies in the epigenomes of Alzheimer's disease and melanoma. She is also a board member of the Harvard Medical Postodoc Association.

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### The face of the Beast

Julie Chessell St Marys, Canada

n an instant life can change. In a moment, a family can be shattered and what they thought was their norm becomes their most challenging experience. It can either tear families apart or bring them closer. You become a victim or a survivor. Pediatric Gastrointestinal Cancer, or more specifically Hepatoblastoma, is a diagnosis typically found in 0-4 years of age, not in an eleven year old. How do parents view this devastating news? A dream is shattered, and how you handle this frightening information can impact not only your patient, the extended family and but most certainly parental mental capacity. Choosing to succumb is not an option. Selecting to change your mindset for the positive can have a profound impact on treatment and overall outcome. No one care plan is the same. No one is exempt, whether you are in the healthcare arena or not. It takes a village of people to have a hand in allowing a child not to become a statistic. Pediatric Cancer can potentially be a lifelong medical condition, with Hepatoblastoma accounting for only 1% of pediatric cancers. Supporting families and their journey is key to overall health. Hope is that beautiful place between the way things were and the path of the way things are yet to be. There comes a point in life when you realize that nothing will ever be the same. You realize that from that point on, time will be divided into two parts - before this and after this. Our journey is different than the next, but with the passion to give back, anything is possible. Empowering people about determination and resiliency is key. Now it's our turn to make that difference!!

### **Biography**

Julie Chessell is a mom and registered nurse from Ontario, Canada. Her personal interest focuses on pediatric hepatoblastoma, Liver organ transplantation and mindset. She has spoken on behalf of the Canadian Liver Foundation as well as the Organ Project. Her journey has been featured on TSN, SportsNet, The Ottawa Senators, The Organ Project and various news outlets

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October 29-30, 2018 | San Francisco, USA

### Digestive disease and our metabolism

**Pramod Stephen** India

The stomach is the main part of the body because by the stomach our whole body gets nutrients. If our stomach gets disturbed the all body gets disturbed. We know that most of the people suffering from stomach problems some have a gastric problem, some with indigestion, sometimes vomiting, pain and several other kinds of disturbances occur, and due to stomach problem, our body gets many kinds of diseases. Our body gets disturbed due to our way of living, types of food and its intake, time for eating and cleanliness. Now we see that many kinds of metabolic disturbance come out day by day and we give only substitutes but we fail to cure it and stop the substitutes. It is time for us to change our eating system to keep our digestive system and metabolism correct.

Method: We must eat our food slowly i.e. 25 to 35 minutes because in our body some hormones take 20 to 30 minutes to secrete. For example, we can take leptin hormone it takes 20 to 30 minutes to secrete. This hormone is responsible to send a message to our brain that our stomach is filled, or we are satisfied with the food. If we will eat our food faster, then there will be no secretion of leptin hormone and no message will be come out to our brain then. we will eat more food and saliva will not be mixed with food and as result, many kinds of hormones will not function properly. We should not talk at the time of eating because by this process our saliva is disturbed and our metabolic process is also affected badly. We must chew food timely and intake of liquid should be more. My method is fit for any kind of metabolic disorders.

### **Biography**

Pramod Stephen has compeleted his Matric S.E.C. from Allahabad (UP) in 1973 (Arts Compart) & I.A. B.U. from Muzaffarpur in 1977 (Geography 3rd div). Subject of his study/research is on Dairy with Animal feed & Diabetes specialization. His Notable Contributions include preparation of low cost animal feed by useless substances like khakahra (dead rice grain) and calcium, maze khari (oil cake) and turmeric certified by NDRI Karnal, Haryana (India) & human medicine by useless substance i.e. bile juice to cure stomach problems. He has also written a book named "Your Health is in Your mouth" on human health to cure diabetes, stomach problems, metabolic disorders, thyroids, piles etc. Professional awards/honours include the Shristi Samman (2007) - by N.I.F. (Science & Technology) Ahmedabad for low cost Animal feed, Champaran Ratna (2008), Rotary Motihari Lake Town.

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### Early colorectal cancer detection employing XNA technology

**Michael J Powell** DiaCarta Inc., USA

C cientists at DiaCarta have developed an innovative xeno nucleic acid molecular clamp technology, or XNA technology, Oto address the sensitivity needs for tumor gene mutation and other important gene mutations in liquid biopsy and FFPE samples. XNA technology uses proprietary designed XNA oligomers with modified backbones that hybridize target DNA sequences of interest by Watson-Crick base pairing. When the sequence is a complete match, XNAs hybridize tightly to the DNA target sequences, blocking strand elongation by DNA polymerase in the PCR reaction. However, when a mutation is present in the target sequence, the mismatch leads to instability of the XNA oligomer: DNA duplex, allowing strand elongation by DNA polymerase. As a result, an only target sequence containing mutations is selected for amplification and wild-type sequence, despite being present in much larger DNA amounts/copies, will not be amplified. Since XNA oligomers are not recognized by DNA polymerases, they cannot serve as primers in the subsequent real-time PCR reactions. XNA molecular clamps assays are highly sensitive using nucleic acids obtained from liquid biopsy or tumor tissue biopsy (FFPE) samples. The limit of detection (LOD) can reach as low as 0.1% (7 or 8 copies of mutant DNA) in 5ng of ctDNA, roughly equivalent to 2ml of blood from a patient. Since the presence of high levels of circulating cell-free mutant tumor DNA (ctDNA) and exosome derived nucleic acids have been found to be associated with poor survival in colorectal and other cancers and dynamic monitoring of the level can be used as a predictive factor for cancer treatment.

### **Biography**

Michael J Powell is a highly recognized scientific and business leader with more than 25 year's experience in R&D, technology, and business and corporate development. He has extensive knowledge and experience in the fields of molecular diagnostic assay research and development, qPCR and other nucleic acid amplification technologies, and automated instrumentation platforms. He has published many research papers in leading scientific journals and holds more than 40 patents and patent-pending applications. He received his PhD in medicinal organic chemistry from Loughborough University, Loughborough, UK and also pursued postdoctoral research and a teaching fellowship from the University of Nottingham, Nottingham, UK. He was also a Postdoctoral Industrial Research Fellow at the University of Oxford, UK and was instrumental in developing the amperometric glucose sensing technology that was the basis of Medisense, Inc. which was acquired by Abbott Labs for \$950M.

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# Young Research Forum

Day 1

### Robotic rectal cancer surgery: Icg identification of line of transection

Revanth Gangasani Manipal Hospitals, India

Rectal cancer is the second most common cancer in women and third most common cancer in men in the world. The Clinical spectrum is different in India. The mean age at diagnosis in India is 47 years with male preponderance. Most of the patients have advanced stage at presentation and signet ring cell histology. Anastomotic leak is the most feared complication of rectal cancer surgery secondary to decreased vascularity. ICG has shown to identify the real-time image of vascularity of colon, thereby decreasing the risk of anastomotic leak and excess colonic mobilization. Earlier studies have shown that ICG based localization of the line of the transaction is technically possible and safe and can avoid unnecessary excess bowel mobilization and resection.

Aim: To find out the line of transection detection rate using ICG.

**Materials and Methods:** Study design: Prospective study. Study period: 17 September 2017 to 17 March 2018. Study setting: Manipal Hospital, Bengaluru. Study subjects: patients with rectal cancer satisfying the inclusion criteria. Sample size: This is a prospective study done over a period of six months. A total of 30 patients were enrolled in the study. Inclusion criteria: Patients with biopsy proven rectal cancer. Exclusion criteria: Patients with known allergy to ICG.

**Methodology:** All patients fulfilling the inclusion criteria and willing to participate in the study were subjected to robotic surgery. Following the distal transection or mobilisation, ICG injection was given IV through the canula. 3cc of 2.5mg/ ml concentration was injected intra venously followed by flushing with 10cc of distilled water. The line of transection was identified by firefly mode and proximal transection was done with oncologically safe margin. The study has been approved by institutional ethics committee.

**Statistical Methods:** The collected data variables were entered into excel sheet. After appropriate data filtration, the data was transferred and analysed using SPSS software version 20. Quantitative data was analysed using t test and p<0.05 was considered statistically significant.

**Results:** The mean  $age\pmSD$  of the patients was  $52.4\pm12.4$  years. There was male preponderance with 61.5% being males. ICG identified the line of transection in rectal cancers with authenticity in 100% of patients. Unnecessary splenic flexure mobilization and resection of the excess sigmoid colon could have been avoided in 76.9% of patients. Anastomotic failure could have resulted in 7.6% of patients if anastomosis has been done by clinical judgment alone. This can identify the vascular segment of bowel real time and thereby provides a safe anastomosis.

### Biography

Revanth Gangasani, currently working as a fellow in robotic oncosurgery with special interest in gastrointestinal cancers has completed his MBBS from Kakinada, India in 2007 after which he did his Masters from Guntur Medical College, Guntur, India. He did his MCh in surgical oncology from SVIMS, Tirupathi, India. He is a Manipal University Fellow in Robotic Surgery, India under mentorship of Dr Somashekhar who is an authority in Robotic surgery. He is currently working on projects like Port placement techniques in robotic surgery and role of ICG in robotic surgery.

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# Tips, tricks and modifications for robotic 3 stage oesophagectomy and gastrectomy for Da Vinci X system

Abhinav Y Deshpande Manipal Hospitals, India

Rand gastrectomy. It has expanded new horizons in terms of the anatomical aspects of organs, opening up new planes of dissections as well as the extent of lymph nodal retrieval. Intuitive has established procedure cards for many procedures but for the Thoracic esophageal part, there are none. Our institute was the first one in India to establish Robotic system X in India. Being new to this hybrid system, which doesn't have an overhead boom for instrument manipulation as well as orientation, and change of port size to 8mm, it was an initial phase of the challenge, which culminated in our own port placement modifications as well as some procedural changes for the new Robotic System X.

**Methodology:** We would like to put forward our tips, tricks, and modifications to the procedures done by the Robotic system X for Esophageal and gastric surgeries through short videos.

**Esophageal Surgeries:** Hallmark of our study is the unique port placement for the robotic arms giving access from the thoracic inlet to the diaphragmatic hiatus also, the tips like Hanging the esophagus from the roof and the technique of supra azygous dissection and lymphadenectomy along the recurrent laryngeal group of nerves is very helpful in complete 3 stage oesophagectomy.

**Gastrectomy surgeries:** The hallmark of our modification is the introduction of the subcostal port, which is placed 4 centimeters above the midpoint of the line joining the camera port and the Arm 3. The essence of any Gastrectomy or the Gastric part of esophagectomy for lower oesophageal cancer is the D2 lymphadenectomy. The gastric part of esophagectomy is the replication of D2 lymphadenectomy done for the stomach. Approach the D2, by first starting the dissection in the lesser sac, here a search for accessory left hepatic has to be done which may be present in 10-12% of the cases then dissecting along the common hepatic artery, splenic artery that is along the superior border of pancreas along the axis of T12, L1 reaching up to the spleen then tackling the short gastric is the most useful tip. We approach the stomach from behind rather than above which prevents falling of stomach and omentum in the area of our dissection. No need of putting additional Liver retractor (only Prograsp is sufficient). This indeed would be beneficial practically for the robotic surgeons in their initial phase of learning and also the tips given during the video helpful for the experienced ones in certain crucial steps in performing a complex procedure like gastrectomy robotically with more ease.

### Biography

Abhinav Y Deshpande, currently working as a fellow in robotic oncosurgery with a special interest in gastrointestinal cancers has completed his MBBS from Nagpur, India in 2009 after which he did his masters in general Surgery from prestigious King Edward Memorial Hospital, Mumbai, India. He did his MCh in surgical oncology from Gujarat Cancer and Research Institute, a tertiary care referral center from Ahmedabad, India Having a keen interest in Robotic Surgery, he was fortunate to get the prestigious Fellowship of Vattikuti Foundation (United States ) at Manipal Institute, Bangalore, India under the mentorship of Dr Somashekhar who is an authority in Robotic surgery. He has also presented his paper in European Breast Cancer Organization at Amsterdam in 2016 and at Lisbon Portugal in 2017 at Advanced breast cancer with Travel fellowship. He has been affiliated to the SSO (Society of surgical oncology, US) and ESSO. He is currently working on projects like Port placement techniques in robotic surgery and the role of ICG in robotic surgery. He has got the best paper award in Robotic surgeons council of India for his presentation on Port placement modifications for da Vinci X system for various Gastrointestinal and pelvic surgeries.

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# Scientific Tracks & Abstracts

Day 2

October 29-30, 2018 | San Francisco, USA

# Large chromosomal rearrangements yield biomarkers to distinguish low-risk from intermediate and high-risk prostate cancer

Farhad Kosari Mayo Clinic, USA

**Background:** We tested the hypothesis that chromosomal rearrangements (CRs) could separate low-risk of progression (LRP) from an intermediate and high risk of progression (IHRP) prostate cancer (PCa), and if these CRs have the potential to identify men with LRP on needle biopsy that harbor IHRP PCa in the prostate gland.

**Methods:** Mate Pair sequencing of amplified DNA from pure populations of Gleason patterns (GPs) in 154 frozen specimens from 126 patients was used to detect CRs. A custom bioinformatics pipeline identified abnormal junctions and copy number variations (CNVs). Chromosomal instability was approximated by the number of abnormal junctions. Potential CR biomarkers with the higher incidence of IHRP than in LRP and having significance in PCa biology were identified. Independent marker validation was performed by FISH in a set of 152 archived specimens from 124 patients.

**Results:** The number of abnormal junctions did not distinguish LRP from IHRP. Loci corresponding to genes implicated in PCa were more frequently altered in IHRP. Integrated analysis of CNVs and microarray data yielded six potential markers that were more frequently detected in the GP3 of a Gleason score of 7 (GS7) PCa compared to GP3 in a GS6 PCa. Five of those were cross-validated in an independent sample-set with statistically significant AUCs. Probes detecting deletions in PTEN and CHD1 had AUCs of 0.87 and 0.73, respectively, and probes detecting gains in ASAP1, MYC, and HDAC9 had AUCs of 0.71, 0.82, and 0.77, respectively.

**Conclusions:** CNVs in regions encompassing important PCa genes were predictive of cancer significance and have the potential to identify men with LRP PCa on needle biopsy who have IHRP PCa in their prostate gland.

### Biography

Farhad Kosari's interests are in the discovery and development of clinically relevant biomarkers for cancers. His domains of expertise are bioinformatics and molecular biology particularly as related to the development of biomarker-based assays. His recent projects related to the identification of genomic abnormalities that distinguish "indolent" from "significant" prostate cancers which is one of the most urgent needs in the clinical management of patients with PCa. His interests also include neuroendocrine (NE) tumors of the lung including small cell lung cancers (SCLC) and adenocarcinomas with NE differentiation (ND-AD). Characterized by the expression of ASCL1, ND-AD is a sizable subset of lung tumors that are largely understudied and underappreciated. Kosari's group has recently discovered the main drivers of ND-AD and is testing targeted therapies in patient-derived tumors. Furthermore, he has recently identified anti-tumor immunity as the key determinant of survival in SCLC and is currently investigating the therapeutic implications of these findings.

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Anabolics in the diagnosis and treatment of small intestinal bacterial overgrowth

**Edward Lichten** 

Wayne State University School of Medicine, USA

**F**ollowing on the footsteps of Marshall who discovered *H. pylori* and the presumed relationship to peptic ulcer, Pimentel and of the product they had found a methane-producing bacteria that was instrumental in the disabling pain, gas, diarrhea, and disability that they named SIBO: small intestinal bacterial overgrowth. The non-absorbable rifaximin became a billion-dollar product, while, the literature not only questioned any scientific methodology but also, if any patients have symptoms relief for more than 12 weeks. A thorough hormonal, breathe gas analysis and work up for gastrointestinal disorders was undertaken on 20 patients, half who had been seen, treated at least twice, and failed in consultation with even Pimentel himself. Correcting the underlying hormonal dysregulation was successful in relieving symptoms in 75% of the two-thirds followed for one year. None needed the antibiotics while a minority of 4 did well with nutraceuticals. Two-thirds resumed a normal life. Interestingly, this gastrointestinal disorder had a high incidence of autoimmunity: pernicious anemia, atrophic gastritis, Hashimoto's thyroiditis, and inflammatory serum markers. In summary, the use of the biomarker, the Free Androgen Index, was effective in defining the hormonal disruption that when corrected, corrected the vast majority of men and women 's with major SIBO complaints. Tests for intestinal permeability, methane and hydrogen gas breathe tests, tests for celiac and *H. pylori* were in these 20 patients of no value. SIBO is another autoimmune, inflammatory hormonal dysregulation disease that can be simply diagnosed and treated by recognizing the hormonal, Gender-Specific cause.

### **Biography**

Edward Lichten is an obstetrician-gynecologist in Birmingham, Michigan and is affiliated with multiple hospitals in the area, including DMC Huron Valley-Sinai Hospital and Providence-Providence Park Hospitals. He received his medical degree from The Ohio State University College of Medicine and has been in practice for more than 20 years. He is one of 39 doctors at DMC Huron Valley-Sinai Hospital and one of 73 at Providence-Providence Park Hospitals which were specialized in Obstetrics and Gynecology.

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# Regulation of calcium-sensing receptor expression by vitamin D and proinflammatory cytokines in colorectal cancer

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nti-proliferative effects of calcium in the colon are partially mediated by the calcium-sensing receptor (CaSR). The  $\hat{A}_{CaSR}$  gene is located in the chromosomal region 3q13.3-21 and is constituted of 2 non-coding and 6 coding exons. The transcription of CaSR is under the control of promoters 1 and 2, which yield different transcripts containing either of the untranslated exons 1A or 1B. The expression of CaSR decreases during colorectal tumorigenesis and the underlying mechanisms regulating its expression are poorly understood. The CaSR promoters 1 and 2 harbor vitamin D elements responsive to 1,25-dihydroxyvitamin D3 (1,25-D3) and NF-kB, STAT, and SP1 binding sites accounting for responsiveness to proinflammatory cytokines. Vitamin D is known for its pro-apoptotic and anti-inflammatory effects in CRC. We have previously shown that high dietary doses of vitamin D prevented the formation of chemically-induced preneoplastic lesions in a mouse model. On contrary, increased production of proinflammatory cytokines, including TNFa and IL-6 has been reported in inflammatory bowel disease and CRC patients. The impact of 1,25-D3 and proinflammatory cytokines (IL-6, TNFa) on CaSR expression in colon cancer cells is not well known. This led us to hypothesize that they might regulate the expression of the CaSR. We performed a study where we analyzed the role of 1,25-D3, TNFa, and IL-6 on CaSR expression in Caco2/AQ, a well differentiated and Coga1A, a moderately differentiated colorectal cancer cell line. Over the time course of 48 hours, we observed upregulation of the CaSR expression in both cell lines. The well-differentiated Caco2/AQ cells responded with higher induction of the CaSR expression than Coga1A cell line. Moreover, we observed a reduction in the expression of the proliferation markers cyclin D1, minichromosome maintenance 2&7 (MCM2 and MCM7) in Caco2/AQ cells. These studies suggested that in addition to the direct role of vitamin D in chemoprevention, it can also upregulate the expression of the CaSR, thereby linking together the chemopreventive actions of vitamin D and calcium in colorectal tumors. In the less differentiated cell line Coga1A, TNFa had a pronounced effect in increasing the expression of the CaSR, indicating that CaSR might serve as a defense mechanism towards inflammatory stimuli. Additionally, in both cell lines, IL6 induced the expression of the CaSR. Interestingly, in the well-differentiated Caco2/AQ cells treated with 1,25-D3 counteracted the effects of IL6 and TNFa. This could be attributed probably to the anti-inflammatory role of the 1,25-D3. This study provides further evidence towards the protective role of the CaSR in colon cells against inflammation.

### Biography

Irfete S Fetahu received her PhD at the Medical University of Vienna (Austria) under the supervision of Prof Enikö Kallay as a Marie Curie Early Stage Researcher. During this time she was the recipient of several national and international awards, including fellowships from the European Association for Cancer Research and the Federation of European Biochemical Societies. She was a board member of the Young Scientist Association of the Medical University of Vienna. Following her PhD graduation, she started her postdoctoral fellowship at the Harvard Medical School (USA), where she is currently working in uncovering the aberrancies in the epigenomes of Alzheimer's disease and melanoma. She is also a board member of the Harvard Medical Postdoc Association. She currently serves as an Ambassador of the European Association for Cancer Research.

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### Bioactive peptide aglycin for the prevention and treatment of diabetes and non-alcoholic fatty liver

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A glycin, a natural peptide extracted from legume seeds such as pea and soybean, is composed of 37 amino acids with highly conserved amino acid residues. It has strong resistance to the hydrolysis of digestive proteases to reveal the excellent stability. Aglycin has an obvious function of stimulating intestinal insulin signaling like GLP-1, thereby promoting the synthesis and secretion of insulin, and reducing blood glucose level in an animal model with hyperglycemia. Meanwhile, it also has anti-inflammatory functions in islets to protect the aging and damage of islet beta cells. The underlying mechanisms are highly correlated with the biosynthesis of glucose transporter-4 and the activation of the insulin receptor, as well as the enhanced insulin sensitivity. Moreover, this polypeptide also can promote  $\beta$ -oxidation of fatty acids in hepatocytes and inhibit the production of hepatocytes. Taken together, aglycin can be used as a potential oral polypeptide drug or supplements to prevent and treat diabetes and non-alcoholic fatty liver disease.

### **Biography**

Zhengwang Chen has completed his PhD Karolinska Institute in Sweden. He is a Professor in School of Life Science and Technology at Huazhong University of Science and Technology. He is also a senior research scientist of Zhong-Shi-Du-Qing Biotechnology Co. Ltd., Shandong Tianjiu Industrial Group in China. He has separated, purified and identified serval natural polypeptides with a series of bioactive functions for the prevention and treatment of chronic diseases, which have been patented for the potential candidates of natural medicines and supplements.

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### Water and our metabolism

**Pramod Stephen** India

Tature itself has complete substance and process to control the diseases. It has many processes like clean air, clean water, exercise, seeming, eating the natural and adequate food, drinking the requirement of water with good process, clean the body, live in a clean environment, do the physical exercise then the life of a man become healthy wealthy and wise. When we went to research journey (Shod Yatra) we see very few people live in hundred years then we asked people the reason of your long life then they told us that I have a simple life and we expand our life in nature. We can see that all substance requires for our body present in the nature like iron, manganese, sulfur, boron, palladium, zinc, chromium, and other many substances. These substances also present in fruits vegetables and different grains. As we know that the land of different places is different color, smell, and structure. I found that every place has a different kind of water test if it is not purified. Water is very necessary for our metabolism. We see that many people do not drink outside water they always prefer to sterilize water to some extent it is good. But when our body needs water then they do not get sterilize water it gets the bad effect on our metabolism and our endocrine gland gets depressed. Many people do not drink water during the traveling time and office hours because they do not want to go toilets many times. Due to take less water many people get a stone burning sensation in urination. So, my advice to every people of the world they must drink enough water that their urine not goes in yellow color and not try to control the urine because we control urine that time our metabolic system gets disturbed and we feel uneasiness in body, mind and blood circulations. Many times we get pain during urination that time we need medicine.

### **Biography**

Pramod Stephen has completed his Matric SEC from Allahabad (UP) in 1973 (Arts Compart) and IA BU from Muzaffarpur in 1977 (Geography 3rd div). Subject of his study/research is on Dairy with Animal feed & Diabetes specialization. His notable contributions include preparation of low-cost animal feed by useless substances like khakhra (dead rice grain) and calcium, maze Khari (oil cake) and turmeric certified by NDRI Karnal, Haryana (India) & human medicine by useless substance i.e. bile juice to cure stomach problems. He has also written a book named "Your Health is in Your Mouth" on human health to cure diabetes, stomach problems, metabolic disorders, thyroids, piles etc. Professional awards/honors include the Shristi Samman (2007) by NIF (Science & Technology) Ahmedabad for low-cost Animal feed, Champaran Ratna (2008), Rotary Motihari Lake Town.

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# Initial efficiency of the direct antiviral agent on HCV infected kidney transplant patients at Cho Ray Hospital

Tran Xuan Truong, Thai Minh Sam, Hoang Khac Chuan, Du Thi Ngoc Thu, Nguyen Trong Hien, Thai Kinh Luan, Quach Do La, Nguyen Duy Dien, Mai Viet Nhat Tan, Nguyen Tjhanh Tuan, Pham Dinh Thy Phong, Bui Duc Cam Hong, Nguyen Thi bang Chau and Nguyen Thi Thu Le Cho Ray Hospital, Vietnam

**Purposes:** To evaluate the efficiency of DAA (Direct Antiviral Agent), in particular, Sofosbuvir, Ledipasvir in Hepatitis C treatment for patients with kidney transplants. Take note in the side effects and drug interactions during the treatment processes.

**Method:** Intervention, prospective, cohort, case studies, non-randomized, open on to all kidney transplant cases with chronic Hepatitis C tested positive HCV RNA (+); the patients from the cases above had agreed to be the research's subjects from 11/2015 to 8/2018 at Cho Ray hospital. Two regimens Sofosbuvir/Ribavirin and Sofosbuvir/Ledipasvir have been used for treatments, which depend on HCV genotype and liver cirrhosis levels.

**Results:** In 440 patients who had been observed after kidney transplants, 44 cases anti HCV (+), 29 cases HCV RNA (+) and 4 cases HBV/HCV Confection. There were 15 cases with chronic Hepatitis C participated in study. Males made up 66.6% of the group with the average age 49±7.06 yrs. There were 6.7% of them not taking full-course treatments. 80% of the patients were infected with only C virus, while 20% of the patients were co-infected with B and C virus. 40% of them had histories of previous blood transfusions. The ratio of patients with elevated liver enzymes was 33.3%. Genotype 1 (a and b) was 33.3%, genotype 2 was 6.7%, genotype 6 was 53.3% and 6.7% unidentifiable genotype. There were 2 cases which were treated with Sofosbuvir/Ribavirin regimen and 13 cases which were treated with Sofosbuvir/Ledipasvir regimen. Rapid virologic response (RVR) is 100%. Sustained virologic response (SVR) within 12 weeks and 24 weeks is 100%. Relapse ratio 0%. In regimen using Sofosbuvir/Ribavirin, side effects including severe anemia, fatigue, loss of appetite related to Ribavirin occur in 50% of cases (1/2) which lead to stopping treatment termination after 10 weeks and being replaced with treatment regimens using Sofosbuvir/Daclatasvir with good results. No major interactions are recorded when being used simultaneously with immunosuppressive drugs such as Prograf, Sandimmum Neoral, Mycophenolate Mofetil, Prednisone in this research. No renal failure occurs. Liver enzymes are improved during and after treatment. There is improvement scale of fibroscan after treatment.

**Conclusion:** Sofosbuvir/Ledipasvir regimen have proven their effectiveness in treating chronic Hepatitis C genotype 1, 2 and 6 on kidney-transplanted patient, with RVR at 100%, SRV 12 and SRV 24 at 100%. Sofosbuvir/Ribavirin regimen have proven to be effective in eliminating virus and be economical in treating chronic hepatitis C genotype 2, however, the anemia side effect of ribavirin need to be considered in case it become serious and now the first-line regimens are Sofosbuvir/Daclatasvir or Sofosbuvir/Velpatasvir. There is improvement of hepatic fibrosis after treatment DAA.

### **Biography**

Xuan Truong Tran has completed his PhD at the age of 25 years (1989) and postdoctoral studies at Ho Chi Minh Medical University. He is the Chief of Department of General Medicine 9B1, Cho Ray Hospital, Vietnam from 2016 until now. His medical specialty is General Internal Medicine. In nearly 30 years on the internal medical field, he had experiences in malaria, infectious diseases and hepatitis, especially hepatitis B and C on kidney transplantation. He has participated more than 15 researches about malaria and hepatitis in kidney transplantation. He had made some reports in ISN or CAST conferences. He is a member of the Vietnam Association for the Study of Liver Disease (VASLD), Vietnam Uro-Nephrology Association (VUNA) and member of, International Society of Nephrology (ISN).

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### A patient's experiences about what quality of life actually means

Chad Walkaden

Chad Walkaden Counselling & Consulting Services, Australia

The Cancer Blueprint is a cancer coaching program that is based on a model created in Australia by three-time cancer survivor, L Chad Walkaden. In 2014, at the age of 29, Chad was diagnosed with a stage four Adrenal Cortical Carcinoma (ACC) and he had a life expectancy of under 24 months. During the past four years, he has used overcome two separate reoccurrences and he has simultaneously experienced his mother's personal battles with a bowel cancer diagnosis. A combination of his past university studies, his personal experiences and an interest in promoting his quality of life placed him in the ideal position to use his knowledge and unique skillset to help other patients. The result of his endeavors included a collaboration with Sydney University and a collaboration with Australian Cancer Charity, Redkite. More recently, his cancer coaching model has been used to help patients (and their families) with their personal experiences of having cancer. The model is designed to directly coincide with the care that a patient is receiving from their doctor and or oncologist. The main focus is to promote the quality of life for the patient by providing psychological and emotional coaching and then integrating evidence-based supplementary and alternate treatments into their life.

### **Biography**

Chad Walkaden is an experienced forensic social worker with tertiary studies also in education and family therapy. He is the director of Chad Walkaden Counselling & Consulting Services. A service combing both the reparative work associated with counselling, coupled with a more proactive and holistic approach to coaching. In 2015, he developed "The Sunflower Model: Life Beyond Treatment", a nationally endorsed education/therapeutic group for people aged 16-24 who have finished their cancer treatment.

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Outbreak investigation of scabies, Dembiya district, North Gondar zone, Amhara region, Ethiopia, November 2017

#### Girma Birhanu Nurie

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**Background:** Scabies affects people of all countries. In developing countries, children in particular are most susceptible, with an average prevalence of 5–10%. It is very common in Ethiopia, especially during natural or manmade disasters, such as flooding, drought, civil war and conflict, poor water supply and sanitation, and overcrowded living condition.

**Methods and Materials:** We conducted 1:2 unmatched case-control study from August 28 to November 2, 2017 in Dembiya district, North Gondar zone, Amhara region. 40 cases and 80 controls were randomly selected from the community. Data was collected using structured questionnaire. Analysis was made using Epi Info and SPSS software. Odds Ratio, 95% CI and p-value were used to measure the significance of association in bivariate and multivariate analysis. Variables with p-value of equal to or less than 0.05 were reported to be significantly associated with dependent variable.

**Results:** We identified 141 scabies cases with overall attack rate of 2% and zero case fatality rate of reported cases 55% of them were male and the median age of affected population was 16yrs (IQR=19yrs). Sex (AOR: 0.4, 95% CI: 0.1-0.7), Hand washing with soap (AOR: 0.6, 95% CI: 0.1--0.6), Body bath more than a week (AOR: 1.5, 95% CI: 1.2-4.1), Cloth exchange with infected person (AOR: 3.1, 95% CI: 2.0-4.0), contact history (AOR: 17.0, 95% CI: 13.4-20.0), and water shortage (AOR: 3.3, 95% CI: 2.4-4.5) were significantly associated with scabies.

**Conclusion:** We found poor hygienic practices, sharing of clothing materials, sleeping with people that had contracted scabies was associated with higher frequency of scabies disease. Therefore, increasing awareness creation about the transmission, prevention and control methods of scabies disease is recommended.

### **Biography**

Girma Birhanu Nurie holds a Master of Public Health in Epidemiology from Addis Ababa University, Ethiopia. He did his BSc in Environmental Health at University of Gondar, and Diploma in Environmental Health at Jimma University, all in Ethiopia. Currently, he is working as Field Epidemiologist, Researcher/Disease Prevention and Control Officer at Addis Ababa Regional Health Bureau, Department of Public Health Emergency Management/Bole Sub City Health Office. His passion is taking preventive medicine closer to the rural populations in Ethiopia. He is a former basketball player. He enjoys community work/volunteering, and is a member of Ethiopian Public Health Association.

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### Current understanding of gastric cardiac carcinoma

Qin Huang Harvard Medical School, USA

astric cardiac carcinoma (GCC) arises in the cardiac mucosa located primarily in the proximal stomach within 3cm below J the gastroesophageal junction. The 7<sup>th</sup> edition of the American Joint Committee on Cancer (AJCC7) staging scheme classified this carcinoma as esophageal adenocarcinoma (EAC), which has been shown to be inadequate by recent research results. The data from high-quality research papers show a rising incidence of GCC in East Asian countries, but a decreasing trend in the West and a plateaued low level in the United States. The studies from China and Japan suggest a slow progression of natural history in GCC, especially at the early stage. While risk factors and tumorigenesis mechanisms for GCC remain elusive, histopathologic investigations demonstrate a wide histopathologic spectrum with a predominance of the Lauren intestinal type carcinoma and rare cancer types such as carcinosarcoma, adenosquamous and neuroendocrine carcinomas, and carcinoma with lymphoid stroma, in contrast to a low frequency for poorly cohesive carcinoma including signet-ring cell carcinoma. Because of heterogeneous post-resection patient survival characteristics, patient survival cannot be adequately stratified and staged by the AJCC7 staging rules on the EAC. The recent results on genomic investigations of gastric and esophageal cancers reveal a unique genetic profile in GCC with a predominance of a gastric chromosomal instability type, which is the same as EAC, indicating the same molecular type for both EAC and GCC. The most recent multicenter study in 15 countries with 25411 radical gastrectomies exhibited a clear stratification of GCC patient prognosis with the staging rule for gastric cancer. Thus, the updated AJCC 8th manual has reversed the staging role in AJCC7 and re-classified GCC as gastric cancer. These outstanding progress have significantly advanced our understanding of GCC and direct future investigations to a new direction with the goal to cure this potentially fatal cancer.

### **Biography**

Qin Huang is a senior practicing pathologist with a strong interest in Gastrointestinal Cancer. Over the past 15 years, he has devoted most of his time and energy, investigating cancer in the gastroesophageal junction region, including gastric cardiac carcinoma (GCC), Barrett's esophagus, and esophageal adenocarcinoma (EAC), and hereditary gastric cancer. He was the first to publish a study on the inadequacy of AJCC7 on staging of GCC, to indicate differences in clinicopathology of cancers in the GEJ region between Chinese and Americans, to show the rarity of EAC in Chinese, to report a novel subtype of pancreatic-acinar-like adenocarcinoma in the gastric cardia, and to describe unique clinicopathologic features of early GCC.

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# 2272<sup>nd</sup> Conference



International Conference on

GASTROINTESTINAL CANCER AND THERAPEUTICS &

4<sup>th</sup> World Congress on

DIGESTIVE & METABOLIC DISEASES &

26<sup>th</sup> Annual Congress on

**CANCER SCIENCE AND TARGETED THERAPIES** 

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# Video presentations

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### Effect of the anti-cancer preparation NSC-631570 (Ukrain) in pancreatic carcinoma

Wassil Nowicky

Ukrainian Anti Cancer Institute, Austria

n a controlled randomised study by Beger et al. in the Ulm University Hospital, Germany, the therapy with NSC-631570 and gemcitabine doubled the survival rate in the patients with inoperable advanced pancreatic cancer. The longest survival was 19 months in the group treated with gemcitabine alone, 26 months in the combined group, and in the NSC-631570 alone group two patients were alive after 28 months. NSC-631570 was well tolerated. The study authors consider further evaluation of NSC-631570 as justified whereas the quality of life of the patients improved. Patients were further observed after the conclusion of the study and it was noted that UKRAIN was well tolerated and could be administered without problem to all patients. UKRAIN brought about a significant increase in survival time in comparison to therapy with gemcitabine alone. Combination therapy with gemcitabine and UKRAIN showed no advantage over monotherapy with UKRAIN. The longest survival in the gemcitabine group was 19 months, 21 months in the gemcitabine+Ukrain group, and in the UKRAIN group a patient was still alive after 28 months. The authors concluded: As a result of this study we highly recommend the treatment of patients suffering from advanced pancreatic cancer with Ukrain. In 2007 the results of another clinical study by the same research team were published. This time the efficacy of the adjuvant therapy with NSC-631570 has been demonstrated in the patients with advanced pancreatic cancer after surgery. The patients were treated with a combination of NSC-631570 and gemcitabine. The median survival was 33.8 months and the 5-year survival rate was 23.3% which is clearly better than results reported in the earlier studies without NSC-631570, with the median survival of 20.1 months and the 5 years survival rate was 21%. Moreover, NSC-631570 at therapeutic dose range has only minimal adverse effects, improves the quality of life of patients and can be administered also on outpatient basis. All these features distinguishes this drug favorable compared to the standard cytostatic agents. Other researcher confirmed the efficacy of NSC-631570 in pancreatic carcinoma, while the partial remission rate was as high as 85.7% in one study. The longest survival in palliative therapy was more than six years.

### Biography

Wassil Nowicky, Dipl. Ing., Dr techn., DDDr HC, Director of "Nowicky Pharma" and President of the Ukrainian Anti-Cancer Institute (Vienna, Austria). Has finished his study at the Radiotechnical Faculty of the Technical University of Lviv (Ukraine) with the end of 1955 with graduation to "Diplom Ingenieur" in 1960 which title was nostrificated in Austria in 1975. He became the very first scientist in the development of the anticancer protonic therapy and is the inventor of the preparation against cancer with a selective effect on basis of celandine alkaloids "NSC-631570". He used the factor that cancer cells are more negatively charged than normal cells and invented the Celandine alkaloid with a positive charge thanks to which it accumulates in cancer cells very fast. Author of over 300 scientific articles dedicated to cancer research. He is a real member of the New York Academy of Sciences, member of the European Union for applied immunology and of the American Association for scientific progress, honorary doctor of the Janka Kupala University in Hrodno, doctor "honoris causa" of the Open international university of a name od Albert Schweizer. He has received the award for merits of the National guild of pharmacists of America. the award of Austrian Society of sanitary, hygiene and public health services and others.

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### The patients with hyperuricemia needs screening colonoscopy

Manuela Stoicescu University of Oradea, Romania

**Objective:** The most important objective of this presentation is that the patients with an increased level of uric acid need screening colonoscopy, indifferent that they are asymptomatic.

**Material and methods:** Present the situation of a patient 60 years old, which came at the consultation for pain in the right flank. He had the level of uric acid=20mg/dl. After colonoscopy appeared in evidence that inside of the colon were presented 20 polyps in all colon: sigmoid, transverse and ascendant. He couldn't believe that must to follow the procedure for endoscopic resection of all over of these polyps, but this was performed in three separated interventions. I have observed in my medical practice more than 80 cases in a similar situation, with an increased level of uric acid more than 10mg/dl (between 10-20mg/dl) and all these patients presented after colonoscopy was performed, more than 10 polyps inside of the all colon and needed endoscopic resection.

**Results and discussions:** This situation must be taken into account because isn't a simple coincidence. The explication is that the patient who eats very much red meat and drinks alcohol has increased level of uric acid. So, indirectly the increased level of uric acid ( hyperuricemia) attract attention that the patient consumed in a diet very much red meat and low diet in fibers and for this reason present a risk for colon polyps.

**Conclusion:** All the patients with hyperuricemia, indifferent that they are asymptomatic, must to perform screening colonoscopy, because sure they present many unknown polyps inside of the colon, which needs endoscopic resection as early as possible.

### Biography

Manuela Stoicescu is Consultant Internal Medicine Physician (PhD in Internal Medicine), Assistant Professor of University of Oradea, Faculty of Medicine and Pharmacy, Romania. She was invited as speaker at more than 30 International Conferences is USA, China, Japan, Canada, Thailand, Dubai, Spain, Germany. She is Committing Organizing Member at many International Conferences, is editorial board member in two ISSN prestigious Journal in USA, published more than 30 articles in prestigious ISSN Journals in USA, published five books (two on Amazon–one is: "Sudden cardiac death in the young" and second is: "Side effects of antiviral hepatitis treatment"), one book with OMICS USA: "Tumour markers in hypertensive young patients", one monograph ("High blood pressure in the young an ignored problem?!") and two chapter books–Cardiovascular disease: Causes, Risks, Management CVD1- Causes of Cardiovascular Disease 1.5,1.6, USA on Amazon.

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Breast cancer related antigen: Acceptability and implications in Indian population

Akhil Jain

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reast cancer is most common cancer in India as stated by the recent release of the International Agency for Research on DCancer (Globocon 2018). Hereditary causes of breast cancer are well known and Breast Cancer Related Antigen (BRCA) gene mutation is the most common of them. Besides breast cancer, BRCA mutation has been shown to an etiologic factor for other cancers like ovarian, uterine, prostate, pancreatic cancers, multiple cancers in an individual or family members. In India, BRCA gene mutational analysis is not readily accepted by the patients despite its important implications in family screening and treatment for the metastatic mutant disease. We did a retrospective analysis of 53 breast cancer patients who attended tertiary cancer care hospital in National Capital Region of India between January 2016 and August 2018 and were eligible for BRCA gene mutation testing. All patients were properly given pre-genetic counseling. Out of 53 patients, only 22(41.5%) finally consented for analysis of germline BRCA gene mutation. Twenty patients were enrolled in government insurance schemes and only 2 were self-employed. Thirteen (59%) patients had breast cancer, 3(13.6%) had both breast and ovarian cancer, 4 (18%) had ovarian cancer, one (4%) had uterine cancer and one (the only male patient) had prostate cancer. Of these 22 analyzed patients, 4(18%) were found to be having germline BRCA mutation. BRCA-1 was mutated in one patient and BRCA-2 in three patients. One patient and her family denied for post-genetic counseling and did not attend the outpatient clinic further. Rest three families attended educational and awareness programs and consented for screening all in terms of germline mutational investigation, regular clinical and radiological follow-up. Since one of these patients was having recurrent and metastatic breast cancer, she was started on Olaparib and showed a clinical response. Thirty-one patients (58.5%) refused the investigation due to financial constraints, social stigma and unwillingness to adopt prophylactic measures in case germline mutation turned out to be positive. Due to various social, economic and psychological barriers, the acceptability of BRCA analysis is poor in the Indian scenario. Denial for germline analysis in indicated clinical situations may delay or miss out the diagnosis of hereditary cancer syndromes and jeopardize the needed screening of family members for the possible malignancies.

### **Biography**

Akhil Jain, Senior Medical Oncologist, has been practicing medicine at Fortis (IOSPL) Hospital, Noida. Having begun his career at BJ Medical College, Ahmedabad, Gujarat, India, he has worked at various reputed hospitals such as Sanjay Gandhi Memorial Hospital, Delhi; Ram Manohar Lohia Hospital, Delhi; The Gujarat Cancer and Research Institute; BJ Medical College, Ahmedabad; Action Cancer Hospital, Paschim Vihar; prior to his current position. He is a proud alumnus of BJ Medical College, Ahmedabad, Gujarat where he graduated with an MD in Internal Medicine. He conducted his postdoctoral work at The Gujarat Cancer and Research Institute BJ Medical College, Ahmedabad, Gujarat, procuring a DM Superspecialty degree in Medical Oncology. He holds professional memberships at reputed cancer organizations such as ESMO (European society for medical oncology), and other prestigious associations. He has contributed to number of national and international publications and has been part of various clinical trials and scientific projects. He has been awarded with "Utkrisht Sewa Samman" for his contributions towards "No Tobacco Campaign".

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### Anti-cancer preparation NSC-631570 (Ukrain) in the treatment of malignant melanoma

Wassil Nowicky

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alignant melanoma is one of the most deadly skin cancers. At the early stages of melanoma development the patients are treated surgically, but the advanced disease is virtually incurable. Numerous clinical investigations have been conducted to improve the efficiency of melanoma treatment. Nevertheless, biologists and clinicians continue working on the new possible methodology of treatment and keep up to search new therapeutic agents as drug resistance is a commonly observed problem. NSC-631570 is an anticancer agent created on the basis of alkaloids from the plant Chelidonium majus. For more than 20 years NSC-631570 had been used for cancer treatment. Monotherapy and combined application of NSC-631570 are successfully used for the treatment of malignant melanoma since 1996. The purpose of this study is to describe the experience of the use of NSC-631570 in the treatment of malignant melanoma and to disclose of some mechanisms of the preparation action. The first case report concerns successfully used NSC-631570 in combined therapy of the patient with malignant melanoma and multiple metastases in the lungs. Another representative case report regards patients with melanoma (III stage) with longlasting remission (more than 10 years without recurrence) after the monotherapy with the drug. The preparation exerts a cytotoxic effect towards the broad spectrum of tumor cells through the depolarization of mitochondrial membrane followed by apoptosis. Treatment of B16 melanoma cells with NSC631570 at apoptogenic concentrations induced dose-dependent tumor cell death accompanied by the release of HMGB1. The levels of HMGB1 in the cell probes treated with the drug exhibited a strong correlation with the levels of cell death. Treatment of B16 melanoma cells with NSC631570 at the non-apoptogenic concentration causes an increase in TAP expression. Thus, NSC-631570 induces immunogenic melanoma cell death with the release of immunostimulating alarmin HMGB1, up-regulates TAP expression, thereby increasing the immunogenicity of the tumor as a whole.

### Biography

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