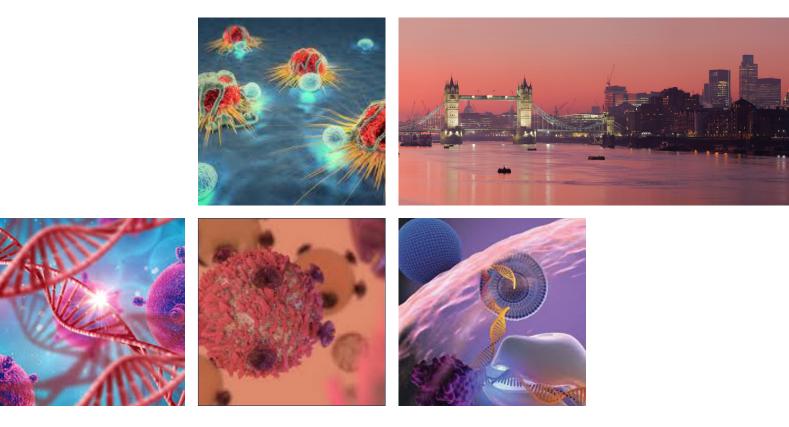


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# Scientific Tracks & Sessions March 18-19, 2019

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# Oncology 2019 & Cancer Therapy 2019



International Conference on Oncology & Cancer Therapy

March 18-19, 2019 | London, UK



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The science of interstitial fluid: Non-invasive and non-radioactive assessment and measurement of interstitial fluid data versus blood parameters in relationship to any health condition including cancer

Galina Migalko Universal Medical Imaging, USA

Due to the many ineffective diagnostic evaluations and treatment results of conventional medical protocols more efficient alternatives are needed.

As cancer progresses, a dynamic microenvironment develops that creates and responds to cellular and biophysical indications. While largely ignored in conventional Medicine, the pH, electrolytes and other important parameters of the interstitial fluid (IF) of the Interstitum is suggested as an important part in identifying any health condition, including cancer. It is further suggested that majority of health conditions may be the result of an over-acidic chemistry of the interstitial fluids of the body that can be prevented or reversed with an alkalizing lifestyle and diet (ALTD). Extracellular fluid (ECF) is a body fluid found outside of the cell. Plasma and interstitial fluid are the major components of ECF. Lymph, transcellular fluid, cerebrospinal fluid, intraocular fluid, synovial fluid, pericardial, intrapleural, and peritoneal fluids, and digestive juices are minor components of the ECF. The main function of the ECF is to move water and electrolytes throughout the body. Therefore, it maintains the homeostasis of the body while providing nutrients to the body cells. The main difference between plasma and interstitial fluid is that plasma contains more proteins whereas interstitial fluid contains fewer proteins. Most of the other dissolved products such as nutrients and electrolytes occur in similar concentrations in both plasma and interstitial fluid. The total body volume of the interstitial space is three times that of plasma; however, Interstitial Fluid (IF) compartments around the cells are microscopic. IF bathes the cells and feeds them with nutrients by providing a corridor between the capillaries and the cell.

Plasma and interstitial fluid are the two types of ECF in the body. Plasma can be found inside the blood vessels while interstitial fluid can be found in the tissue spaces. Both plasma and interstitial fluid are mainly composed of water. Other dissolved components are also similar in both plasma and the interstitial fluid. Plasma contains a higher concentration of oxygen and proteins. Interstitial fluid contains a higher concentration of carbon dioxide. The main difference between plasma and interstitial fluid is the location and composition of each type of ECF in the body. Until recently, the role of interstitial fluid (IF) was thought to be mostly passive in the transport and dissemination of cancer cells to metastatic sites. With research spanning, we have seen that interstitial environment and pH has an important effect on cancer cell in multiple cancer types. Based on the quantitative and qualitative information of the IF, cancerous condition can be improved significantly or on the other hand resist therapeutics and recur. The role of interstitial fluid in cancer prevention and treatment is very important and needs to be taking to a serious consideration by a medical community in order to avoid therapeutic failure and treatment resistance. Non-invasive Blood Testing (NIBT) and Full Body Bio-Electro Interstitial Scan (FBBEIS) are presented as a noninvasive non-radioactive diagnostic test to examine the body fluids pH, chemistry, metabolic data and functionality of the organs and organ systems and clearly understanding the meaning and differences of both in the presence of any acidic condition. Qualitative and quantitative Blood Evaluation (BE) is used as an important part of determining hematological data to compare with the interstitial fluid analysis. In addition, non-invasive Full-Body Thermography (FBT) and Full-Body Ultrasound (FBU) combined with the interstitial fluid (IF) evaluation are presented as a noninvasive methods to examine the physiology, the anatomy and the functionality of the organs, organ systems, glands and tissues in relationship to acute or chronic health conditions including cancer in the prevention, diagnosis, prognosis, treatment and monitoring the progress of therapy.

#### **Speaker Biography**

Galina Migalko brings more than 30 years of excellence in non-invasive diagnostic medical imaging. Her pioneering research in whole-body medical diagnostics using full-body thermography, full-body ultrasound, full-body functionality and non-invasive blood analysis testing has set her apart as the World's leader in complementary and alternative medical scans. These tests have also helped to educate her patients on the root causes of their health issues so they can make intelligent decisions concerning necessary medical treatments and avoiding unnecessary medical treatments. She lectures and trains physicians in clinical imaging for early detection and prevention of the disease, partnering with profit and non-profit organizations and offering nutritional and diagnostic workshops, international wellness retreats and consultations all over the world. She speaks at seminars, on webinars, social media, web-radio interviews and holds classes throughout the World on diagnostic medical imaging and early detection of acute and chronic health issues.

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March 18-19, 2019 | London, UK

#### Novel surgical options in breast cancer

Diane M Radford Cleveland Clinic Foundation, USA

This talk focuses on advances in oncoplastic surgery techniques for breast cancer, and surgical methods to reduce lymphedema.

Nipple-sparing mastectomy (NSM) in the United States was first described by Drs. Joseph Crowe and Randall Yetman of the Cleveland Clinic (CCF) in 2004. Incision placement for the procedure can be inframammary, periareolar, lateral, upper outer quadrant, lateral with a periareolar extension, medial, and transareolar. When the tumor is superficial in location, preserving the skin anterior to the tumor can compromise the oncologic goal of clear margins. The technique of Tumor Ultrasound-guided Incision (TUGI) for NSM developed by Dr. Stephen Grobmyer and colleagues at CCF overcomes this problem.

The techniques employs intraoperative ultrasound to locate the tumor and delineate the skin overlying it. The incision is then based on the tumor location, removing the skin anterior to the tumor en bloc with the NSM. This approach balances oncologic safety and technical outcomes.

Lymphedema is the nemesis of axillary nodal surgery for breast cancer, impacting patient quality of life and resulting in significant functional, psychological, and social morbidity. Although the increased use of sentinel node biopsy, either when nodes are clinically negative, or following neo-adjuvant therapy (NAC), has resulted in lower lymphedema rates, the rates following full axillary dissection can be up to 77%.

Techniques to reduce lymphedema include axillary reverse mapping (ARM), meticulous dissection of arm lymphatics with loupe magnification, microsurgical lymphaticovenous bypass, and a triple mapping technique following NAC which incorporates Indocyanine Green (ICG) fluorescence for sentinel node bypass.

#### **Speaker Biography**

Diane M Radford is a staff breast surgical oncologist with the Cleveland Clinic in Cleveland, Ohio, and Director of the Breast Program at Cleveland Clinic Hillcrest Hospital. Originally from Scotland, she trained on both sides of the Atlantic, including the Professorial Unit, Royal Infirmary of Edinburgh, the Western Infirmary, Glasgow, and St. Louis University. She has completed fellowships in Surgical Oncology (Roswell Park Cancer Institute) and Integrative Medicine (University of Arizona). Her peers have recognized her as a Best Doctor every year since 1996 as well as a Top Doctor nationally. She has authored numerous peerreviewed journal articles and textbook chapters. Active on social media since 2011, she has lectured nationally and internationally on social media for health care professionals including at the Harvard course "Achieving Healthcare Leadership and Outcomes Through Writing, Publishing, and Social Media," and at the American Society of Breast Surgeons annual meeting. She participates in the tweet chat #bcsm (breast cancer social media) and has been featured as a guest expert. She serves on the Editorial Board of the Annals of Surgical Oncology, Multi-Media section, and co-authored a guide for other members of the board on how to use Twitter. Her Twitter followers number over 15,000.

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March 18-19, 2019 | London, UK

#### Pulmonary adenocarcinoma lung cancer both metabolic and dietary acidic conditions

Robert Young pH Miracle Medical Association, USA

ystic fibrosis (CF) and Pulmonary Adenocarcinoma (PAC) have similar symptomologies and are chronic, progressive, and frequently fatal acidic conditions of the respiratory system (lungs), lymphatic system (lymph nodes), intestines, pancreas, urinary tract system, reproductive organs and the skin as the alkaloid glands (the salivary glands, stomach, and small and large intestines) produce and secrete alkaline compounds, such as sodium bicarbonate to buffer and preserve the alkaline design of the body and the specific organs and glands affected. These metabolic and dietary acidic conditions resulting in the build-up of mucous can affect any organ or organ system but primarily affects the respiratory, lymphatic system, digestive, and reproductive tracts in children and young adults with CF and the lungs and surrounding lymph nodes in PAC. I have suggested from my own clinical research that both of these conditions are the result of latent tissue acidosis (LTA) in the interstitial fluids of the Interstitium or the

fluids that surround every cell, created from metabolism, diet, thoughts and environment and may be successfully treated and reversed with an alkaline lifestyle and diet (ALD).

#### Speaker Biography

Robert Young has been widely recognized as one of the top research scientists in the world in the nutritional sciences. He has a PhD in Nutrition, an MSc and a DSc in biology and chemistry. He also has a ND in the naturopathic sciences. Throughout his career, his research has been focused at the cellular level having a specialty in cellular nutrition, he has devoted his life to researching the true causes of "disease," subsequently developing The New Biologyâ to help people balance their life. In 1994, he discovered the reality of biological transformation of red blood cells into bacteria and bacteria to red blood cells. He has documented several such transformations. His research findings have been published in several noted journals, including The Journal of Alternative and Complementary Medicine. (Sympathetic Resonance Technology, Scientific Foundations and Summary of Biologic and Clinical Studies, Dec. 2002, Vol. 8, No. 6: 835-842). Metabolic and Dietary Acids are the Fuel that Lights the Fuse that Ignites Inflammation that Leads to Cancerl. He is the author of numerous articles (Herbal Nutrition 1988) and author and co-author of many books. He has currently sold over 5 million pH Miracle books in 191 countries and his books are translated in 29 different languages.

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March 18-19, 2019 | London, UK

#### The role of c-Met endosomal signalling in cancer

Stephanie Kermorgant

Queen Mary University, London

The receptor tyrosine kinase c-Met is overexpressed in 20-80% of cancers with the level of expression correlating with metastasis and poor prognosis. We have shown that upon activation, c-Met rapidly internalizes. However c-Met continues to signal inside the cells on endosomes. Moreover c-Met endocytosis is an important aspect of its oncogenic properties. Thus we reported that c-Met mutants found in cancer patients are oncogenic not only because they are highly activated but also because they signal on endosomes. We have shown that c-Met signalling from a late endosome triggers breast cancer cell migration. We discovered that beta1integrin and c-Met co-traffic through a novel "Autophagy Related Endomembrane (ARE)". From there, the integrin plays the non-adhesive role of a scaffold to sustain c-Met signalling. This leads to cell survival in anoikis and metastasis. Thus we hypothesise that c-Met intracellular localisation and signalling play major roles in cancer progression. A better understanding of the molecular biology of intracellular c-Met may lead to improved cancer treatment as well as improved biomarker to select the patients who would respond to c-Met targeted therapy.

#### **Speaker Biography**

Stephanie Kermorgant completed her PhD with Thérèse Lehy at the French National Institute of Health and Medicine (INSERM) and Paris VII University, France, in 1999. Between 2000 and 2005, She performed postdoctoral studies with Professor Peter J Parker at the Cancer Research UK London Research Institute. She joined the Centre for Tumour Biology at the Barts Cancer Institute in May 2005, as a Lecturer. Thanks to a "Medical Research Council New Investigator Award" and funding from the "Barts and the London Charitable Foundation", she set up her research group "Spatial Signalling", which is investigating the role of growth factor receptor signalling and trafficking in tumour metastasis.

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March 18-19, 2019 | London, UK

# Selective internal radiation therapy (SIRT) versus Transcatheter arterial chemoembolisation (TACE) in radiology

**Grace Moscatelli** Sydney Hospital, Australia

Selective Internal Radiation Therapy (SIRT) and Transcatheter Arterial Chemoembolisation (TACE) are both minimally invasive procedures performed in the angiography suite by an Interventional Radiologist. Patients with primary or secondary liver cancer who are unable to have a surgical resection due to tumour size, position, multifocality or inadequate hepatic reserve may be a suitable candidate for a SIRT or TACE procedure.

Prior to treatment the patient would have baseline imaging scans followed by a consultation. Once the agreed procedure is confirmed further tests and information is given to the patient such as taking blood, ceasing anticoagulants and fasting details to ensure patient is prepared in a safe and timely manner. On the day of the procedure a nurse from the radiology department admits the patient ensuring the patient is prepared properly for the planned procedure while in care of the multidisciplinary team.

To commence the image guided procedure local anaesthetic is administered followed by an arterial puncture on the femoral artery obtaining access where an access needle is followed by guidewires and a thin catheter. The doctor navigates through the patient's blood vessels by injecting radiopaque contrast media while breathing instructions are performed by the patient to acquire clear images identifying the hepatic artery supplying the liver tumour. This technique enables liver tumours to be selectively irradiated avoiding the portal vein supplying normal liver parenchyma minimising damage to healthy surrounding tissue.

Although these treatments do not permanently cure liver cancer, the aim is to increase survival time and quality of life. The patient may have more than one treatment and when combined with standard chemotherapy survival benefit increases. As with all procedures it is evident risks are involved and post procedure complications may also occur. The risk versus benefit is explained to the patient and any complications requiring intervention would be treated as needed.

#### **Speaker Biography**

Grace Moscatelli completed her Bachelor of Nursing at University of Western Sydney and she is currently studying Bachelor of Nursing with Professional Honours Specialising in Anaesthetic and Recovery Nursing at University of Tasmania. She works at a local Sydney hospital in Australia as a Registered Nurse in the Radiology, Nuclear Medicine and PET Department. She has presented at Medical Imaging Nurses Association National Conference in Melbourne, Australia in 2017, Euro Cancer International Conference in Rome, Italy in 2018 and Annual Biomarkers Congress in Osaka, Japan in 2018.

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March 18-19, 2019 | London, UK

#### Necroptosis is a programmed death pathway involving in pituitary adenoma tumorgenesis

#### Alireza Sheikhi

Iran University of Medical Sciences, Iran

**Introduction**: Pituitary adenomas impose burden of morbidity due to hormone hyper secretion and related effects on patients. Molecular mechanism underlying its incidence, development and progression have yet to be elucidated which can provide insights into new and more efficient therapeutic approaches. The involvement of necroptosis as an appealing way of cell death in pathogenesis of pituitary adenomas is perused in the current study.

**Methods**: The expression level of necroptosis crucial mediators (RIP1K, RIP3K, and MLKL) was assessed via Real-Time PCR in tumor tissues of prevalent functional and non-functional pituitary adenoma and normal Pituitary tissues. The effect of Shikonin on the cell viability and induction of apoptosis or necrosis in the presence and absence of necroptosis inhibitor (Necrostatin-1) were evaluated in pituitary adenoma cell line (GH3).

**Results**: Our results revealed that RIP1K expression level was increased in tumor tissues of different types of pituitary adenomas which was associated with significant decrease in the

expression level of RIP3K and MLKL in tumor tissues comparing to normal pituitary. Shikonin reduced the percentage of GH3 viable cells in a dose dependent manner which was associated with the induction of apoptosis and necrosis. The Shikonininduced cell death was diminished in response to suppression of necroptosis.

**Conclusion**: Necroptosis pathway is involved in the regulation of pituitary tumor cell proliferation. Suppression of necroptosis resulted in an accelerated cell proliferation which can cause pituitary tumor formation. Therefore, necroptosis biomarkers can be perused as hallmark mediators and the necroptosis pathway activation can be targeted as a therapeutic solution in management of pituitary tumors.

#### **Speaker Biography**

Alireza Sheikhi is the manager of the BioChem lab and senior scientist in Armenia (clinical lab and cancer research).

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## Social media in breast cancer care: Harnessing the power of social media for patients and healthcare providers

#### Diane M Radford

Cleveland Clinic Foundation, USA

Communication has been evolving since before the written word. We no longer write on parchment with a quill. Quite simply, social media is one of the main modalities of communication today. Whether it is via Facebook, Twitter, or LinkedIn, millions of ideas are communicated daily. For Twitter, for example, there are 500 million tweets per day. First impressions, of us, and of our healthcare institution, are now made online. According to a Pew report, over 40% of consumers choose a healthcare facility based on information found online. Like it or not, we all have a digital footprint. We can control that digital footprint and use it to influence and advocate on a global scale. One way to control our digital footprint is to have a greater presence on social media.

Jack Dorsey, a co-founder of Twitter, described a tweet as a short burst of inconsequential information. In the intervening years since 2006, Twitter has grown from "several strands of inconsequential drivel to an information powerhouse (Lloyd Price, Zesty)," particularly in the healthcare arena. Social media sites such as Twitter represent the largest source of healthcare discussion in the world.

Examples of influence via Twitter include:

- Live tweeting meetings to disseminate information, such as ASCO, and American Society of Breast Surgeons
- Spreading research findings via virtual abstracts
- Recruitment to clinical trials such as the Metastatic Breast Cancer Project

Examples of advocacy via Twitter include:

- Healthcare –related chats such as #bcsm (breast cancer social media)
- Movements such as #ILookLikeASurgeon, #HeForShe

The talk will also include how to write a compelling twitter profile, what makes an effective tweet, how many hashtags are too many, and how to schedule tweets.

The audience will come away with a greater understanding of the power of social media and be inspired to be more engaged.

#### **Speaker Biography**

Diane M Radford is a staff breast surgical oncologist with the Cleveland Clinic in Cleveland, Ohio, and Director of the Breast Program at Cleveland Clinic Hillcrest Hospital. Originally from Scotland, she trained on both sides of the Atlantic, including the Professorial Unit, Royal Infirmary of Edinburgh, the Western Infirmary, Glasgow and St. Louis University. She has completed fellowships in Surgical Oncology (Roswell Park Cancer Institute) and Integrative Medicine (University of Arizona). Her peers have recognized her as a Best Doctor every year since 1996 as well as a Top Doctor nationally. She has authored numerous peerreviewed journal articles and textbook chapters. Active on social media since 2011, she has lectured nationally and internationally on social media for health care professionals including at the Harvard course "Achieving Healthcare Leadership and Outcomes Through Writing, Publishing, and Social Media" and at the American Society of Breast Surgeons annual meeting. She participates in the tweet chat #bcsm (breast cancer social media) and has been featured as a guest expert. She serves on the Editorial Board of the Annals of Surgical Oncology, Multi-Media section and co-authored a guide for other members of the board on how to use Twitter. Her Twitter followers number over 15,000.

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