

35th SNUCMAA-NA Scientific Convention

Physician Leadership Training: Case-study based Approach

Margaret Carey, MD, MBA, MPH, Georgetown University
Penny Potter, Ph.D., George Mason University

LEARNING OBJECTIVES

At the conclusion of this presentation participants should be able to:

1. List three actions they can take to get to the next step in their career.
2. Demonstrate at least one technique to use in becoming a more effective leader.

Asian leadership is often referred to as quiet leadership, based upon interconnectedness and relationships. East Asian cultures tend to consider context. In one study, when asked to describe an aquarium, East Asians mentioned the plants, the small frog in the background and the sand.

Bae Pak from the Korean motor company Kia said, "When we work with Western colleagues, we are often taken aback by their tendency to make decisions without considering the impact on other business units, clients, and suppliers."

American and Western European cultures focus more on the brightly colored fish swimming in the foreground, as high content cultures. In these cultures, out-in-front leadership tends to be valued.

How can Asian MD's stay true to their cultural values, demonstrate their value in the American medical system and leverage context AND content?

In this session, Margaret Cary MD MBA MPH and Penny Potter PhD will conduct a facilitated discussion of case studies that demonstrate how Korean MD's have successfully navigated this question.

Cellular Therapy for High-Risk Multiple Myeloma

Taewoong Choi, M.D.

Instructor of Medicine

Hematologic Malignancies and Cellular Therapy

Duke University School of Medicine, Durham, NC

With the advent of novel therapies including proteasome inhibitors (PI) and immunomodulatory drugs (IMD), survival outcomes of multiple myeloma improved significantly. Decades ago, expected survival of newly diagnosed multiple myeloma patients was up to 2-3 years at most. Nowadays, with the use of standard triplet induction regimen (PI + IMD + steroid) followed by autologous transplant and maintenance therapy, overall survival of newly diagnosed multiple myeloma patients is reaching 10 years. However, 10-15% of newly diagnosed multiple myeloma patients still have shorter PFS (progression-free survival) and OS (overall survival). Their disease is characterized by resistance to available therapies and early relapse. Their disease has characteristic High-Risk CA (cytogenetic abnormalities) such as 17p deletion, t(4;14), and t(14;16). High-Risk Multiple Myeloma represents unmet needs requiring more effective therapy.

Tandem auto transplant is performing two auto transplants in a row 90 days apart. European group is investigating the role of tandem auto transplant and the data so far showed survival benefit both in PFS and OS, especially High-Risk multiple myeloma patients. However, it is less relevant in the US because of difference in induction treatment practice. Allogeneic HCT (hematopoietic cell transplantation) has been used selectively for High-Risk Multiple Myeloma patients and we've seen successful long-term disease control in limited number of patients so far. This benefit is based on GVT (graft-vs-tumor) effect from donor immune system attacking myeloma cells and it is one of the pioneering immunotherapy. However, the use of allogeneic HCT is limited by significant TRM (transplant-related mortality) which is around 20%. However, allogeneic HCT is one viable option for High-Risk Multiple Myeloma patients when all other therapies fail.

"CAR-T" means T-cells engineered to express CAR (chimeric antigen receptor) so that they can attack specific tumor cells as their targets. CAR-T is actively being developed in many different kinds of hematologic malignancies. The best known success of CAR-T to date is in B-cell malignancies expressing CD19. In 2017, FDA approved two CAR-T therapeutics for B-cell lineage ALL (acute lymphoblastic leukemia) and DLBCL (diffuse large B-cell lymphoma). There is active development of CAR-T in multiple myeloma and the most promising target is BCMA (B-cell maturation antigen). Although we need to see longer follow-up data in more patients, early results of these BCMA CAR-T clinical trials are very impressive. This presentation will summarize emerging data from myeloma CAR-T studies. In the near future, CAR-T may replace tandem auto transplant or allogeneic HCT in High-Risk multiple myeloma.

Annual SNUCM Medical Conference

June 24, 2018

Panel discussion II: “Regenerative Medicine”

“Restoring neural plasticity in Parkinson's disease”

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Parkinson's disease the second most common neurodegenerative diseases next to Alzheimer's disease with increasing incidence with aging. The symptoms consist of slowness of movements, stiffness and tremors as well as gait difficulty as the disease progresses. Cognitive, sleep, and autonomic dysfunction often occur. The main pathology is the loss of dopaminergic neurons in the midbrain and dopamine replacement therapy with precursor, levodopa has been successfully used to ameliorate the symptoms. However, motor response complications follow soon with excessive involuntary movements (dyskinesia) and fluctuation responses. Therapeutic attempts to develop methods to prolong the duration of dopaminergic stimulation have led to dopamine metabolism inhibitors, sustained release formations, or synthetic dopamine agonists with longer half-lives have been partially successful. Cellular transplants including human fetal neurons have been tried without success and stem cells are being developed as an alternative. Gene therapy approaches for PD to deliver dopamine in an optimal fashion by expressing a combination of the genes for biosynthetic enzymes, cofactor, as well as the vesicular monoamine transporter have been also tested in animal models and applied in human studies.

However, studies using gene therapy to increase dopamine production, as well as clinical experience in fetal transplants and continuous dopamine delivery have provided a convergent view that even the most optimal delivery of dopamine may not overcome the problems that arise from downstream plasticity changes in the basal ganglia caused by the disease process and non-physiological pharmacotherapy. Deep brain stimulation surgery takes advantage of knowledge in basal ganglia circuitry abnormalities to restore patient's mobility successfully. My current research focus has been directed towards understanding the mechanisms driving aberrant basal ganglia plasticity that underlies dyskinesia and beneficial plasticity responsible for dopaminergic replacement therapy. New generation of therapy will take advantage of cell-type targeted modulation and their functional connections within the traditional anatomical structures of the current DBS surgery. These developments may lead to the targeting specific CNS circuitry abnormalities by gene therapy modalities or by identifying cell-type specific molecular targets.

Abstract:

Child and Adolescent Psychiatry (CAP)

Wonjung Kim, M.D.

Professor, chief and training director

Child and Adolescent Psychiatry

Robert Wood Johnson Medical School of Rutgers University

This session is to give an introductory overview of Child and Adolescent Psychiatry (CAP).

CAP is a relatively young branch of medicine, beginning with a child guidance clinic movement at the turn of 20th century and its subspecialty board established in 1957.

For the good part of the 20th century, the field was dominated by psychodynamic themes coupled with developmental and behavioral science.

CAP now combines roles in medicine, science, psychology, and advocacy and is a rapidly expanding field with research in treatment, pathophysiology, neuroimaging, familial inheritance, molecular studies, and neurometabolic studies.

Using case vignettes, the presentation will address;

1. What is child and adolescent psychiatry?
2. Differences compared to adult psychiatry
3. Current CAP trends and issues.

Developmental norms and variations, and signs/symptoms raising red flags will be discussed. Multiple etiologies, diagnostic and therapeutic approaches will be reviewed as well.

“Regenerative Medicine”: New FDA Guidelines for Cellular Therapy.

Myong Ho (Lucy) Nam, M.D. (81)

Medical Director

Inova Laboratories and School of Clinical Laboratory Science

[FDA Files its First Injunctions against More Than 100 Stem Cell Clinics!](#)

Adult stem cell therapies are available freely in the US from hundreds of providers in clinical settings. The stem cell therapies could use cells from bone marrow, cord blood or fat tissue, etc.

Many disorders in multiple specialty disciplines are the target of “regenerative medicine” research, while very few FDA approved products are currently available. Stem cell clinics in US as well as in other countries claim their remarkable success stories without the rigorous scientific study data.

There is no standard manufacturing process or treatment regimen, little quality control, and the product may contain as little as 1-5% stem cells while being labeled and marketed as “mostly” stem cells. Many are not registered with FDA, and claim to be [HCT/P](#) and compliant with 21 CFR 1271. Many assert to be beyond FDA’s jurisdiction by labeling their services as surgical and medical treatments. FDA has published guidance documents and articles claiming that most of these clinics are not compliant with the existing laws in the past.

The cellular therapy clinics operate openly, and even advertise their services in major media; doctors do road shows, and thousands of patients pay out of pocket to get these treatments since they are not covered by insurance. Several clinics are even bold enough to register “pay to participate” clinical trials on [clinicaltrials.gov](#) with these adult stem cell products. Very few of these clinics have been audited, and very few Warning Letters have been issued to these businesses prior to recent FDA’s strong action.

During this panel presentation, Brief Summary of GMP and Quality Management Program requirements for the Cellular Therapy will be discussed as well as the newly emerging guidelines with strong emphasis on Quality with stricter auditing and sanctions in recent months including some examples of scientifically proven and poorly documented cellular therapy practices.

Abstract:
Stress and Health Consequences

Seung-Kyoon Park, M.D.

Professor of Psychiatry

University at Buffalo, Jacob School of medicine and Biomedical Sciences

Stress is ubiquitous in our lives and it constantly challenges our biological and psychological equilibrium. The susceptibility to stress varies depending on individuals based on such factors like genetic vulnerability, coping skills, social support, etc. Not all stress has negative impact, especially if it is of short duration. But chronic persistent stress can have serious negative effect on our immune system resulting in various illnesses to our body.

Obviously the relationship between stress and illnesses is complex. Also there is a growing notion that countries known for long working hours and excessive demands for productivity pose undue degree of stress to their people. High suicide rate in Korea may be a case in point.

We know chronic stress, especially of the early onset, has direct and devastating consequences in many psychiatric illnesses. It is also true that chronic stress is a significant factor in relation to many medical conditions, such as asthma, CHD, gastrointestinal diseases, RA, migraine, cancer to name a few.

In this presentation, I will try to emphasize early recognition of stress symptoms and ways to promote healthy life style to reduce serious negative health consequences.

Learning objectives.

1. Learn neurobiology of stress
2. Learn the connection between stress and illnesses
3. Learn ways to reduce stress in everyday life

Treatment of Osteoarthritis of the Knee with Intra-articular Injection of Autologous Adipose-derived Stem Cells: A Phase I/II Clinical Trial

Kang Sup Yoon MD

Department of Orthopedic Surgery, SMG-SNU Boramae Medical Center, Seoul National University College of Medicine, Seoul, Korea

Introduction:

Osteoarthritis of the knee is a common degenerative disease characterized by articular cartilage destruction. It has been a major challenge to clinicians due to limited inherent potential of regeneration. Although many treatment options have been reported and performed, there is no disease-modifying treatment for osteoarthritis. In early stage of disease, treatment strategy is based on symptomatic relief including, rest, rehabilitation exercise and medication of anti-inflammatory drugs, while surgical intervention including arthroscopy and arthroplasty is considered in late stage. To overcome limited capacity of regeneration, cell-based therapy has been increasingly studied and performed. Since autologous chondrocyte implantation is reported in 1994, it has been widely used for the repair of damaged articular cartilage. However, it was mainly for focal cartilage defect rather than generalized cartilage degeneration and its results are still controversial. Mesenchymal stem cells are multipotent cells and have been identified in most of human tissues including bone marrow, adipose tissue, and synovium. Due to their multipotentiality and self-renewal, mesenchymal stem cells present themselves as a promising tool for treatment of various musculoskeletal diseases. The purpose of the present study was to evaluate the clinical and radiological effects of intra-articular injection of autologous adipose tissue derived mesenchymal stem cells.

Methods:

Eighteen patients suffering from osteoarthritis of the knee was involved in the study. There were three men and fifteen women. Average age was 62.1 years old (range, 52 – 72). Autologous adipose tissue derived mesenchymal stem cells were isolated from the subcutaneous fat tissue of patients by liposuction technique. After 3 weeks of culture, 1×10^7 cells (n=3), 5×10^7 cells (n=3), and 1×10^8 cells (n=12) were injected in the knee joint under arthroscopic monitoring. Patients were allowed immediate range of motion exercise, quadriceps setting exercise and non-weight bearing crutch walking till 2 months postoperatively. Clinical and radiological variables were collected, measured and evaluated preoperatively and 6 months postoperatively. Clinical variables were range of motion, quadriceps circumference and power, visual analogue pain scale, and Korean Western Ontario and MacMaster University (K-WOMAC) score. Radiological variables were cartilage defect size, thickness and quality of the medial femoral condyle in magnetic resonance imaging. Biopsy of regenerated cartilage was obtained at the 2nd look arthroscopy.

Results:

There were no postoperative complications such as infection, allergic reaction, injection site reaction and etc. Range of motion, quadriceps circumference, quadriceps isokinetic power, visual analogue pain scale, and K-WOMAC improved significantly after injection. MRI and histology analysis demonstrated regenerated articular cartilage with shiny, white, smooth, and firm appearance. However, the quality of regenerated cartilage was not exactly identical with the hyaline cartilage in the histologic examination.

Conclusions:

This is the first Phase I/II clinical trial of treatment of osteoarthritis with mesenchymal stem cells. Autologous adipose derived mesenchymal stem cells regenerated cartilage with smooth and firm surface. Preliminary clinical results of this study are encouraging. However, further researches for identification of clinical and radiological results of more patients would be necessary.

Women in Medicine

Lunch time session (90 min)

Date: June 24, Sunday

Time: 12pm-1:30pm

Faculty: Kyung Min (Minnie) Song, MD MPH MBA

Gwy Suk Seo, MD

Mooyeon Oh-Park, MD

Moderator: Mooyeon Oh-Park, MD

Background

There has been a tremendous increase in number of women in medical schools in the US and globally for 30 years. In 2017, for the first time, the number of women enrolling in US medical schools (50.7%) has exceeded the number of men according to data released by the American Association of Medical Colleges (AAMC) <https://news.aamc.org/press-releases/article/applicant-enrollment-2017/>. Although this is a notable milestone, the proportion of women reaching the leadership positions in academic medicine and private sectors is lagging behind that of men physicians. Medical field has much more work to do to attain broader diversity among our students, faculty, and leadership. Women have unique set of challenges and social expectations in advancing their career and having a specific knowledge and skillsets is of paramount importance in navigating the academic medicine and private institutions. The scope of the knowledge and skillsets goes beyond medical competencies including negotiation skills, conflict resolution, life-planning, and self-care for wellness. In addition, many young physicians indicate that having a work-life balance is more important than a “stable, secure future” in their career paths. In this highly interactive session, accomplished faculties from various stages of career and background will share their thoughts on the above issues and create an opportunity to discuss issues of women in medicine.

AGENDA

12:00pm-12:10 pm Welcome & Introduction of Faculty Mooyeon Oh-Park, MD

12:10pm-12:30pm Overview of workplace diversity
Kyung Min (Minnie) Song, MD MPH MBA

12:30pm-12:50pm Physician well-being: Evidence based approach
Gwy Suk Seo, MD

12:50pm-1:10pm Graceful self-promotion
Mooyeon Oh-Park, MD

1:10pm-1:30pm Panel Discussion & Suggesting Launching of Women Taskforce

Bio sketch of Faculty

Kyung Min (Minnie) Song, MD MPH MBA
Cofounder, Clssfd, Inc.

Dr. Kyung Min (Minnie) Song is a cofounder at Clssfd which is developing a next-generation social network and peer-to-peer commerce platform for undergraduate and graduate students. She is a self-taught software engineer who is responsible for anything and everything ranging from product design, business development, finance, and marketing. She is always ready to take on new challenges and things that excite her these days include: machine learning, blockchain, mindfulness, and gender equality.



Prior to starting her own venture, Minnie was most recently Senior Manager, Evidence Translation & Implementation practice at Avalere Health, a health policy advisory and business strategy firm based in Washington, D.C. Minnie worked as a Project Manager in Global Health Outcomes at Merck & Co. managing observational studies and utilizing cost-effectiveness models to support product launches. Additionally, she has provided research support to International Vaccine Access Center in the Johns Hopkins Bloomberg School of Public Health. Minnie also has served as a Medical Officer in Korea's Centers for Disease Control & Prevention, revising and implementing new national immunization standards and developing vaccination action plans related to disease outbreaks.

Minnie has a MPH and a MBA from the Johns Hopkins University and a MD from the Seoul National University College of Medicine, Seoul, South Korea.

Gwy Suk Seo, MD, MSc, PhD

Professor of Radiology, Donald and Barbara Zucker School of Medicine at Hofstra/Northwell

Dr. Gwy Suk Seo is a professor of Radiology and an emergency radiologist at Northwell Health, Inc. She graduated from Seoul National University in 1984 with M.D. degree and received PhD degree from Shinshu University, Matsumoto, Japan in 1997. She did fellowship training in Musculoskeletal Radiology at Shinshu University School of Medicine in Japan and University of Rochester in New York, USA. In addition, she did Emergency Radiology Fellowship at the University of Maryland in Baltimore, USA.



After devoting 25 years as a clinician, researcher and teacher of Radiology in Korea, Japan and the US, she studied Marriage and Family Therapy and earned M.Sc. degree from University of Rochester in 2015. She has been working on developing curricula enhancing residents' well-being and physician in general. In her spare time, she works as a life coach focusing on life balance. Dr. Seo was recently relocated to Long Island after 20 plus years in upstate New York to better serve a broader spectrum of population in Radiology and life coaching.

Mooyeon Oh-Park, MD

Chief Medical Officer, Senior Vice President,
Burke Rehabilitation Hospital
Vice Chair of Academic and Administrative Affairs,
Department of Physical Medicine & Rehabilitation, Montefiore Medical
Center/Albert Einstein College of Medicine



Dr. Oh-Park received her Medical Degree from Seoul National University College of Medicine in Seoul, South Korea and holds a Master of Science in Clinical Research from Albert Einstein College of Medicine, Bronx, NY. She completed her Residency Program in Physical Medicine and Rehabilitation (PM&R) at Montefiore Medical Center, Bronx, NY. She is renowned educator receiving 14 teaching awards and serves in leadership roles on various professional associations and editorial boards of multiple journals including American Journal of PM&R.

Dr. Oh-Park held the position of Director of Geriatric Rehabilitation at Kessler Institute for Rehabilitation, Research Scientist at Kessler Foundation, and Vice Chair of Education at the department of PM&R at Rutgers New Jersey Medical School prior to joining Burke Rehabilitation Hospital. Her primary role has been the development of high quality care model for rehabilitation and system integration along clinical practice, research, and education.