

# 2021 Yonsei–Nagoya University Research Exchange Meeting on Health Sciences



6th November, 2021

Nagoya University  
Online meeting

Nagoya Japan

## Welcome Letter

It is our great pleasure to have the 2021 Yonsei-Nagoya University Research Exchange Meeting on Health Sciences.

Due to the worldwide spread of the COVID-19, our meeting in 2020 was postponed to this year. However, since the wavy spread of the virus still continued in both countries, and we have the meeting this time by online.

In both countries, there was a lot of difficulty in clinical and educational practices and researches due to COVID-19 in each field since the spring of 2020. Nevertheless, looking at the titles in this meeting, I believe that each graduate student had made efforts and achieved results under difficult circumstances. At the same time, I realized that it is the younger generation who will open up new paths in situations that we have never experienced. This exchange program began in 2009. Our friendship between the two universities has deepened through the meetings for more than 10 years. I feel that it is very important for the students who will lead the next generation to continue this exchange meeting.

Sincerely,

Minoru Hoshiyama  
Chair, School of Health Sciences, Nagoya University

A handwritten signature in black ink, appearing to read 'M. Hoshiyama', with a long horizontal stroke extending to the right.

## Acknowledgement

This exchange meeting is financially supported by SAKURA SCIENCE  
Exchange Program, Japan Science and Technology Agency.



# Schedule

6 November (Saturday), 2021

Online meeting by Zoom

Plenary session            13:00-13:30

MC: Professor Midori Asano

Opening remarks: Professor Minoru Hoshiyama

Guest greetings: Professor Kyoung Joung Lee

Department sessions    13:30-(17:00)

Nursing

Radiological Technology

Medical Technology

Physical Therapy

Occupational Therapy

Business meeting        11:00 ~ 12:00 (online)

**Program**  
**Department sessions**

**NURSING**

|       |                      |                              |
|-------|----------------------|------------------------------|
| 13:30 | Opening remarks      | Prof. Ikumi Honda            |
|       | Guest greetings      | Prof. from Yonsei University |
| 13:40 | Opening announcement | Prof. Natsuki Nakayama       |

**SESSION I**

Chair: Prof. Chika Oshima

|       |  |                  |
|-------|--|------------------|
| 13:50 | Relationship between care recipients' home care services and family caregivers' coping strategies            | Mika Kawabata    |
| 14:05 | A comparative study on the form of trunk in mastectomy patients and healthy middle-aged women                | Sachiyo Watanabe |
| 14:20 | Delirium knowledge and compassion competence on delirium stress in intensive care unit nurses                | Ji Hye Kim       |
| 14:35 | Relationship between clinical nurses' job stress and medication safety performance: mediating effect fatigue | Se Yeong Park    |
| 14:50 | The effect of death attitude and self-efficacy on depression of intensive care unit nurses                   | Geunhee Lee      |
| 15:05 | Intermission   |                  |
| 15:20 | Refresh time   |                  |

Facilitator: Prof. Natsuki Nakayama

SESSION II

Chair: Prof. Yuki Takahashi

- 15:30      How exercise habit changed with infection prevention Covid-19  
Sota Ookabe
- 15:45      Sex differences in defecation habits  
Rika Aizawa
- 16:00      Differences in maternal role confidence and satisfaction in the early  
postpartum by birth experience  
Akiko Yamada
- 16:15      Social support, grit, health status, and work-life balance of nurses  
Sol Lee
- 16:30      Nursing education in Mongolia  
Dagiitseren Ganbat  
Zolzaya Bayarsaikhan
- 16:45      General comments/discussion  
Closing announcement"      Prof. Natsuki Nakayama
- 16:55      Closing remarks      Prof. Yuko Ikematsu

## RADIOLOGICAL TECHNOLOGY

### SESSION I

Chair: Prof. Shuji Koyama

- 13:30 Evaluation of dose equivalent by secondary neutrons generated by head proton therapy  
Yuta Kobayashi
- 13:50 Imaging and range estimations of prompt X-rays using YAP(Ce) camera during particle-ionirradiation to phantoms with air cavities  
Maki Kitano
- 14:10 Development of a simultaneous imaging system to measure the optical and gamma ray images of Ir-192 source for high-dose-rate brachytherapy  
Jura Nagata

14:30 Intermission

### SESSION II

Chair: Prof. Yeon Soo Yeom

- 14:40 Design of a hemispherical detector for large area radiation monitoring  
Yoon soo Chung
- 15:00 Feasibility study of integrated C-arm CT/SPECT system for patient dose verification inbrachytherapy using Monte Carlo simulation  
Saerom Seong
- 15:20 Development of the shielding evaluation methodology for heavy ion accelerator facility: A Monte Carlo study  
Soo Min Lee

15:40 Intermission

### SESSION III

Chair: Prof. Yeon Soo Yeom

- 15:50 Derivation of optimal indicator to monitor sleep states using Monte Carlo Simulation of water molecules  
Jehyeong Yeon
- 16:10 Foreign body detection in food using single-shot grid-based x-ray dark-field imaging  
Hyunwoo Lim
- 16:30 Closing remarks Prof. Takako Furukawa

## MEDICAL TECHNOLOGY

13:30      Opening remarks      Prof. Fumihiko Hayakawa

### SESSION I

13:40      Chair: Prof. Fumihiko Hayakawa  
Aberrant expression of CEBP  $\alpha$  inhibits MEF2 transcriptional activity in B  
cell precursor acute lymphoblastic leukemia  
Koya Odaira

14:00      Chair: Prof. Bo-Young Jeon  
The phylogenetic analysis of Korean *Aedes albopictus* (Diptera: Culicidae)  
based on the mitochondrial DNA  
Sezim Monoldorova

14:20      Chair: Prof. Tsutomu Kawabe  
Modification of nicotinamide adenine dinucleotide synthesis by diazinon in  
macrophages  
Ko Iwaki

14:40      Chair: Prof. Hye Young Lee  
Genome - wide association studies (GWAS) of atopic march in Korean  
women  
Woojin Choi

15:10      Chair: Prof. Kohzo Nagata  
Dietary soy protein ameliorates insulin resistance and cardiac injury in rats  
with metabolic syndrome  
Xixi Cui

15:30      Intermission



SESSION II

15:40

Chair: Prof. Ki-Jong Rhee

The role of B cells in enterotoxigenic *Bacteroides fragilis* induced colitis and cancer

Minjeong Jo

16:00

Chair: Prof. Tsutomu Kawabe

Release of caveolin-1 from cell membrane induced by quercetin

Hikaru Tsuzuki

16:20

Chair: Prof. Yoon Suk Kim

Pulsed electromagnetic field potentiates etoposide-induced MCF-7 cell death

Yerang Lee

16:40

Chair: Prof. Mitsuo Sato

An hTERT/Cdk4-immortalized normal human bronchial epithelial cell line is highly resistant to mutant KRAS-induced senescence

Nao Muraki

17:00

Chair: Prof. Yong Serk Park

Development of novel cationic lipid nanoparticles for mRNA vaccine

Kang Chan Choi

17:20

Closing remarks

Prof. Mitsuo Sato

## PHYSICAL THERAPY

13:40 Opening remarks

Prof. Hideshi Sugiura

### SESSION I

Chair: Prof. Woochol Joseph Choi

13:45 The effects of elastic ankle tapings on ankle and knee biomechanics during a side-cutting task in young adult males

Jinseok Lim

14:15 Effect of fall characteristics on the severity of hip impact during a fall on the ground from standing height

Kitaek Lim

14:45 Abnormal synergistic gait mitigation in acute stroke using an innovative ankle-knee-hip interlimb humanoid robot: A randomized controlled

Chanhee Park

15:15 Intermission

### SESSION II

Chair: Prof. Satoshi Kametaka

15:30 The relationship between the worn area of the heel outsole and the angle of foot progression in children

Daiki Takahashi

16:00 Effects of Ia fiber activity inhibition on reduction of spasticity measured by Rate Dependent Depression of Hoffman' reflex

Takuto Hanasaki

16:30 Closing address

Prof. Chunghwi Yi

