

# LiSS System, the Japan's first non-medical private sector providing death investigation service

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Mitsuteru Ozawa, Radiographer <sup>2)</sup>

Yukari Imagawa, Embalmer <sup>3)</sup>

Kazuhiro Hanada, Chief <sup>4)</sup>

Miyuki Haga, Secretary <sup>5)</sup>

Tatsuo Wakatsuki, Consultant <sup>5)</sup>

Ayumi Sugiyama, Representative Director <sup>5)</sup>

Ken-ichiro Hashizume, Embalmer, President <sup>3)</sup>

Nyokai Matsushima, Advisor <sup>5)</sup>

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- 4) LiSS Center Shinkiba, LiSS system, Tokyo, Japan
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# Introduction

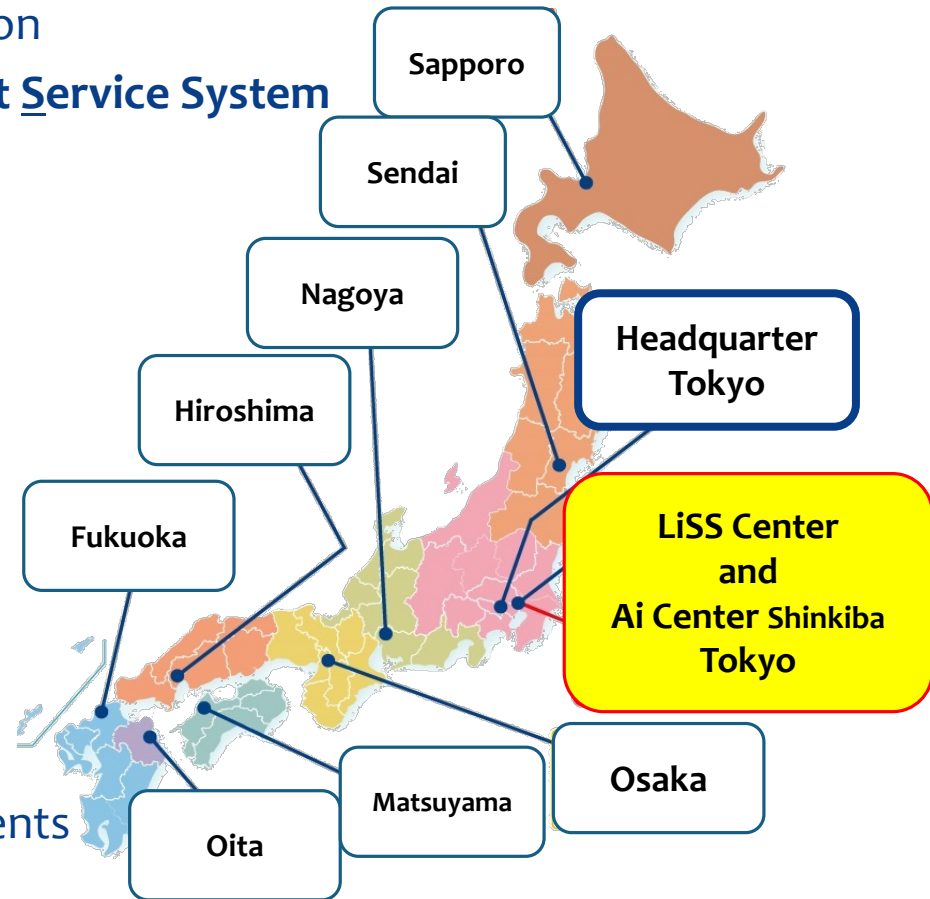
## Company Profile

### \* Name: **NPO LiSS System**

- \* NPO stands for non-profit organization
- \* LiSS System stands for **Living Support Service System**
- \* Founded in Tokyo in 1993

### \* Locations

- \* Headquarter: Central Tokyo
- \* Branches: 8 branches in Japan
- \* LiSS Center: Shinkiba, Tokyo
- \* **Ai Center Shinkiba: Shinkiba, Tokyo**
- \* Number of the employees
  - \* 75 employees
- \* Services
  - \* provides “End-of-life care” for the clients
- \* Number of the clients
  - \* 3,500



HQ and branches

# LiSS Center Shinkiba



- \* Ai Center is located on the ground floor of the LiSS Center

# Introducing the presenter

## Prof. Morio Iino

Tottori University, Yonago, Japan

- \* Board Certified Forensic Pathologist
- \* Founding member of the ISFRI
- \* Associate Editor of JOFRI
- \* Board member of the Japanese Society of Autopsy imaging (Ai)
- \* Councilor of the Japanese Society of Legal Medicine
- \* Consultant pathologist for the NPO LiSS System

## Experiences in postmortem imaging

- \* Attended 1<sup>st</sup> Virtopsy Basic Course in 2006
- \* Attended 1<sup>st</sup> Virtopsy Advanced Course in 2010
- \* Overseas fellow at VIFM, Australia in 2008-2009
  - \* Supervisor: Dr. Chris O'Donnell
- \* Installed CT scanner to Osaka University in 2010
- \* Keynote speaker at ISFRI 2015 in Leicester



VBC 2006



VBC 2006



VIFM, Australia in 2009



# Introduction of the LiSS System

## \* Background

- \* Family relationships in Japan have drastically changed over the past 20-30 years.
- \* Since the late 1980's, some people would not rest in a traditional family grave since they thought their children would not be able to preserve it.
- \* As a solution, Mr. Nyokai Matsushima, a former Buddhist monk, made a form of shared grave called "Moyai Monument" in Tokyo in 1990.
- \* Next issue was who takes care of funerals besides their families.
- \* The answer is... the deceased.
  - \* The funeral planned and done by the deceased himself/herself is needed.



**Nyokai Matsushima, a founder of LiSS System**



**Moyai Monument, the shared grave**

# Introduction

- \* The issues for funerals being done by the deceased
  - \* Legal issues
    - \* Solved by giving the deceased person “Supposed Human Rights”.
- \* The beginning of the LiSS System
  - \* End-of-life care
    - \* division of estate
    - \* funeral service
    - \* solving any legal issues after death
- \* Death is inevitable
  - \* Try to know “when” and “under what circumstances” the event has to take place
    - \* Asking the cause of death of the deceased to the doctors was unacceptable in 1990’s since it seems to be doubting the medical treatment
  - \* The answer is “Autopsy imaging” , the technique of postmortem imaging

# Introduction

- \* Establishment of Ai Center Shinkiba

- \* Installing CT scanner at the corner of the LiSS Center to provide a service for death investigation in April, 2014
- \* Opens 24/7
- \* Scanned 20 cases so far

- \* Equipment

- \* CT scanner: Aquillion 16 (Toshiba, Japan)
- \* Workstation: syngo. via (Siemens, Germany)
- \* Cloud server: provided by eSite HEALTHCARE, Japan

- \* Staff

- \* One full-time organizer
- \* One full-time radiographer
- \* Other LiSS staffs for help

- \* Interpretation of the images (tele-radiology)

- \* Referral radiologists and pathologists can interpret the images online



**CT scanner at Ai Center Shinkiba  
for postmortem imaging**



# Topic in Japan

## Medical Malpractice investigation

- \* In October, 2015, the government remodeled the act to enforce a medical malpractice checking system.
- \* When a patient unexpectedly died during/after the medical treatment , the hospital treated him/her has to report the case to the investigation center and has to investigate the cause/manner of death by themselves.
- \* Under this system, the hospital has to investigate the case though they are not forced to perform autopsy.
  - \* The postmortem imaging is a useful method for investigation.
  - \* The hospitals would not scan the bodies at the hospitals.
  - \* The Ai Center of the LiSS System received attention from Tokyo Medical Association which helps solving issues of malpractice.



# Ai lecture series

- \* To start the postmortem imaging services, LiSS System had a lecture series to educate their staff and other interested parties.
- \* In September, 2015, they had a 2-day course for Ai education.
- \* One of the invited lecturers was Prof. Morio Iino, Tottori University.

## Time table for the Autopsy imaging course (September, 2015)

Day 1	Day 2
Autopsy imaging and autopsy	What is Ai?
Summary of Medical malpractice checking system 1	Basic concept of post mortem scanning
Summary of Medical malpractice checking system 2	<b><u>Autopsy imaging in forensic medicine</u></b>
Infection prevention in transporting bodies	Medical safety management at the hospital
Legal issues of Autopsy imaging	How to treat the bodies 1
	How to treat the bodies 2

# Academic part of the LiSS System

- \* The LiSS System is not just one of the non profit organizations.
- \* It has an academic part trying to absorb the latest information on death investigation.
- \* Mr. Nyokai Matsushima is the person who makes every effort to understand the advanced way of death investigation.



Mr. Matsushima in *Samue*, a traditional Japanese style

# Tours overseas to gain knowledge

## \* Tour in Australia in March, 2016



**Visiting VIFM**



**A lecture at VIFM**



**Beautiful scenery in Melbourne with Dr. O'Donnell**



**Visiting funeral service company**



**A crematorium**



# Tours overseas to gain knowledge

## \* Tour in Amsterdam for ISFRI in May, 2016



Mr. Matsushima met Prof. Grabherr  
after attending the PMCTA workshop



Having Dutch beer



# Lecture series in Japan

## Invited forensic researchers to the LiSS System

- \* Prof. Silke Grabherr
  - \* Talk on MPMCTA (June, 2016)
- \* Dr. Kurt Nolte
  - \* Free discussion on death investigation in the US (March, 2017)
- \* Dr. Valentinus Yudi
  - \* Talk on funeral service in Indonesia(November, 2016)

## Sponsored a congress

### Forensic pathology and science symposium in Nagasaki (November, 2016)

Guest speakers: Prof. Dr. Hermann Vogel, Dr. Chris O'Donnell, Dr. Lars Ebert, Dr. Sookyoung Lee, Dr. Hideki Hyodoh

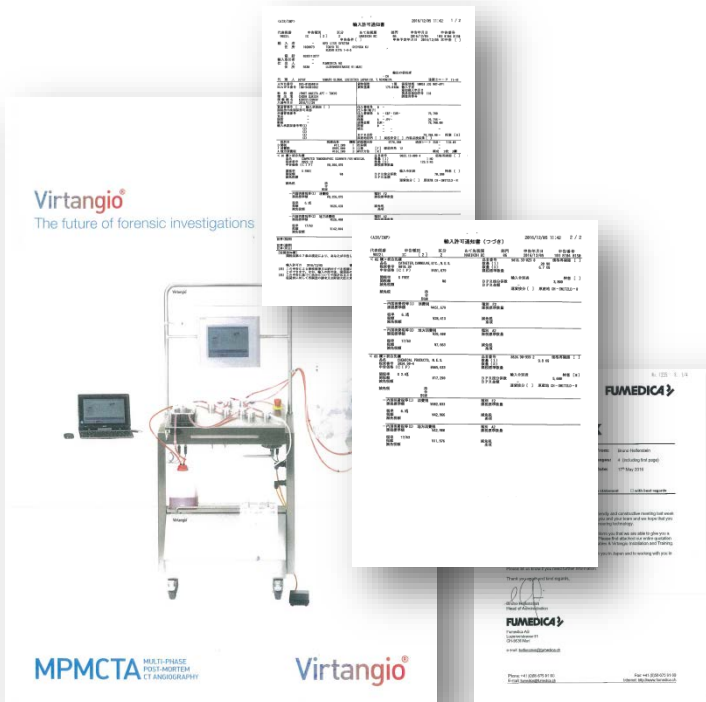


**Guest speakers at the congress in Nagasaki November, 2016**



# Installing the Virtangio®

- \* Mr. Matsushima would not stop seeking new successes in postmortem imaging.
- \* LiSS System decided to purchase the Virtangio for better understanding the cause of death of their clients for the first time in Japan.
- \* It was not easy to import the very first postmortem angiography device in Japan all the way from Europe.



A lot of paperwork had to be done to import Virtangio



Unwrapping the Virtangio (December, 2016)



Semi-liquid paraffin oil made in Japan



Mr. Dominguez teaching Mr. Ozawa, a radiographer

# Delivering the Virtangio

- \* LiSS System does not have many cases since they are not a medical or forensic institute.
- \* Another new idea came to Mr. Matsushima.  
Delivering the Virtangio!
- \* We would deliver the Virtangio anywhere in Japan along with an embalmer and a radiographer .
  - \* We delivered the machine to Kanagawa Dental Uni for the cases of Prof. Iwao Hasegawa.
- \* We have performed 5 cases of MPMCTA so far.



Mr. Ozawa, a radiographer (right)



delivery van for Virtangio

# The embalming company GSI Co. Ltd.

- \* Mr. Hashizume is the president of the GSI which provides the services of embalming and grief care.
  - \* GSI stands for Grief Support International.
- \* Mr. Hashizume is the person who introduced the technique of embalming to Japan.
- \* One of the embalmers, Yukari Imagawa has been trained how to insert the catheter for the MPMCTA.



**Ms. Imagawa, an embalmer has been trained how to insert the catheter.**



**Kenichiro Hashizume**

President of GSI Co., Ltd.

California Licensed Embalmer (EMB 8712)

Licensed Funeral Director in the United States

Commissioner of Japan Transpersonal Association

# LiSS System as a team

## LiSS System

**Nyokai Matsushima, Kazuhiro  
Hanada, Mitsuteru Ozawa**

*CT scanning (radiographer),  
Virtangio, Facility, Cloud Server,  
Delivery of Virtangio*

## GSI Co. Ltd.

**Ken-ichiro Hashizume**

**Yukari Imagawa**

*angiography procedure  
(embalmer)*

## Tottori University

**Morio Iino**

*Image interpreting  
(forensic pathologist)*



# Summary

- \* The LiSS Sytem is an NPO which provides end-of-life care services.
- \* One of the services is postmortem CT scanning.
- \* It is the first death investigation service done by non-medical private sector in Japan.
- \* It now provides MPMCTA service as well after the hard way of importing Virtangio device from Switzerland.
- \* Prof. Iino, a consultant forensic pathologist is a skilled board certified pathologist who has 10 years of experience in postmortem imaging.
- \* He can give them a support in scanning and interpreting the images.
- \* The GSI is the oldest company for embalming services which has a good relationship with the LiSS System
- \* The LiSS System can work with Prof. Iino and GSI as a team in performing and studying MPMCTA cases in Japan.
- \* **We'd like to join the TWGPAM (Technical Working Group Post mortem Angiography Methods) for better understanding of MPMCTA.**





Thank you!





Thank you!