Training Program of Leaders for Integrated Medical System for Fruitful Healthy-Longevity Society

> Kyoto University Japan

> > LIMS:

Research and Educational Unit of Leaders for Integrated Medical System

## Program for Leading Graduate Schools

- Funded by Japanese Ministry of education, culture, sports, science and technology (MEXT) & Japan Society for the Promotion of Science (JSPS)
- Missions: Training graduate students to Ph.D who can serve not only as academic researchers but also as global leaders in academia, industry, and/or public organizations.
- ※ In LIMS program, we are now training graduate students with non-medical backgrounds in medical environments.
- We are preparing also to train graduates from the department of medicine to make medical doctors who understand medicoengineering well and can promote the medical innovation in collaboration with people with diverse backgrounds.

## an Unprecedented Aging Society



## The percentage of national population aged at 65 or older

	Viet Nam		Japan	
Aging society	7.0%	(2011)	7.1%	(1970)
Aged society			14.6%	(1995)
Extremely aged society			21.5%	(2007)
			23.0%	(2010)

## **Japanese Contributions**



(National Inst. Population & Social Security Res. I demographics 2011)

3

4

Japan is one of the first industrialized countries that face the problems of an unprecedented aging society.

Japan has to successfully achieve medical innovation to cope with it and contribute to following countries and regions of the world by showing good models.

Our approach is to train young leaders who can overlook the problems and guide the medical innovation not only in Japan but also in various societies and regions in the world.

# Fruitful Healthy-Longevity SocietyHealth life expectancyLife<br/>expectancyFemale73.6286.30Male70.4279.55(years)

surveyed in 2010, published in 2012 by Japanese Ministry of Health, Labour and Healthcare,

The Japanese government plans to prolong health life expectancy. At first, it aims to make the growth of health life expectancy exceeding that of life expectancy.

Kyoto University's LIMS program seeks

how to implement the growth of health life expectancy along with the improvement of QOL for the elderly and related people.

## **Comprehensive Approaches to Complex Problems**

#### problems

- healthy longevity and high Q O L
- social inclusion of the elderly
- health care cost management

#### needs

- integration of medial/welfare/home-care systems
- supports respecting total aspects of individual life
- prevention of diseases and accidents with good lifestyle

#### Japanese model of healthy longevity

- mutual aid among three generations
- medical supports achieved by the community
- to maintain health by staying at work



Leaders to create integrated medical system based on social needs by making good use of technology

5

# Integrated Medical System and New Medical Industries



## **Japanese Healthcare Policy 2013**

Japanese healthcare policy issued by Japanese Cabinet Secretariat in June 2013 shares key concepts with Kyoto University's LIMS project :

- Establishment of healthy longevity society
- Activation of health industry
- Dissemination of a model to cope with unprecedented aging society

The government also plans to accept medical students from Asian counties to boost regional research level and cooperation in medico-engineering fields.

#### LIMS Program:

- We train students with non-medical backgrounds such as science, technology or pharmaceutical sciences in the field of medical science and medical care, at the level comparable with graduates from the department of medicine.
  - → We welcome foreign students in LIMS program.
- 2. We are preparing also to train graduates from the department of medicine to make medical doctors who understand medico-engineering well and can promote the medical innovation in collaboration with people with diverse backgrounds.
  - → We will encourage Asian medical students to join our project.

# **Research and Educational System**

## Training non-medical students in medical environment

- fundamental medical knowledge for non-medical graduates
- understanding of social needs (especially in medical and care practices)
- specialized knowledge and skills in medico-engineering areas
- health-economics, -policy, & –ethics, and intellectual properties
- internship in companies and foreign institutes

## collaboration of industry, government and academia

## **Kyoto University**

- Graduate Schools of:
- Medicine
- Engineering
- Pharmaceutical Science
- Economics

Institute for Frontier Med. Sci. Res. Inst. for Mathematical Sci. Advanced Biomed. Eng. Res. Unit International Res. Unit of Integrated Complex System Science lecture / internship

## Industrial/public parties

Companies from:

- Medial apparatus industry
- Automotive industry
- Housing industry

Kyoto City

9

etc.

## LIMS Course Schedule

aprin and	i year 2 year	3 year 4 year 5 year		
Research	pre-research	thesis research		
	colloquium			
Exercise Practice	debate			
	practice (Hospital, Nursing home, p	public office, international organization)		
	e, ordustry, and st po	internship in foreign countries, Industrial and public parties	ertificat	
Lecture m	Interdisciplinary application		eof	
	ethics, health economics, IP & standardization			
	medical engineering for so	ciet <mark>y I,</mark> II	ogran	
	basic lectures	June Miles France	-	
cheirioei	↑ Graduate schools and	Thesis Evaluation (Medical science, Human h	↑ nealth scie	

Program development review

#### 10

## the World Health Summit

- As a member of the M8 Alliance, Kyoto University aims at improving global health, working with political and economic decision makers to develop science-based solutions to health challenges worldwide.
- At the World Health Summit 2013 in Berlin, Kyoto University inaugurated international discussion and cooperation concerning "trans-disciplinary collaboration for healthy aging."
- In April 2015, Kyoto University will host the World Health Summit Regional Meeting. We welcome your participation !



Training Program of Leaders for Integrated Medical System for Fruitful Healthy-Longevity Society

# LIMS

Research and Educational Unit of Leaders for Integrated Medical System

info@lims.kyoto-u.ac.jp http://www.lims.Kyoto-u.ac.jp



