# Medical School

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# Pre-medical ScienceMedical Science

- 1) Basic Medical Science
  - Department of Anatomy
  - Department of Physiology
  - Department of Biochemistry
  - Department of Pathology
  - Department of Pharmacology
  - Department of Microbiology and Immunology
  - Department of Preventive Medicine
  - Department of Forensic Medicine
  - Department of Medical Education
  - Department of Biomedical Sciences
  - Department of Parasitology and Tropical Medicine
- 2) Clinical Medical Science
  - Department of Internal Medicine
  - Department of Surgery
  - Department of Obstetrics and Gynecology
  - Department of Pediatrics
  - Department of Psychiatry
  - Department of Neurology
  - Department of Dermatology
  - Department of Orthopedic Surgery

# Affiliated Research Centers

· Research Institute of Medical Sciences

- Department of Neurosurgery
- Department of Thoracic and Cardiovascular Surgery
- Department of Ophthalmology
- Department of Otolaryngology and Head & Neck Surgery
- Department of Plastic and Reconstructive Surgery
- Department of Urology
- Department of Anesthesiology and Pain Medicine
- Department of Radiology
- Department of Radiation Oncology
- Department of Laboratory Medicine
- Department of Nuclear Medicine
- Department of Emergency Medicine
- Department of Physical & Rehabilitation Medicine
- Department of Occupational and Environmental Medicine

Dept. of Premedical Course \_\_Contact Information Phone: +82-62-530-4191 +82-61-379-2516 Fax: +82-62-232-9708 +82-61-379-2560 E-mail: han8432@jnu.ac.kr http://medicine.jnu.ac.kr/english

The educational goal of premedical education is to provide a desired college-level training in liberal arts as well as sciences, and to provide a basis for future medical studies. Accordingly, the premedical curriculum is an indispensable period for the medical students to prepare themselves before they move on to medical school. In this premedical curriculum, students should learn subjects with regard to the natural sciences and cultural subjects that will form the basis of a medical curriculum in the future.

# Professors

See Medical School Professors

### Degree Requirements

Students are required to earn 74 credits and minimum G.P.A. of 1.75 for all semesters (including summer/ winter session)

# What Do You Study? Required Courses

#### [Major]

Human Embryology and Morphology (3) Basics for Medical research (3) Microbial Pathogen and Immunity (3) Cellular and Molecular Biology (3) Gross Anatomy of Human Body (3)

### **Elective Courses**

### [Major]

Medical Etymology (3) Foundation of Medical Science (3) Microbes & Society (2) Organic Chemistry 1 (3) Medical Physics (3) Brain and Life (2)

#### [General]

Writing for Self-reflection and Communication (3)
Introduction to Psychology (3)
Career Plan and Self Understanding (2)
Volunteer Social Service (1)
Bioethics (3)
Coaching Leadership for Self-effectiveness (3)

Comparative Anatomy (3) Genetics (3) Introduction of Medical Humanities (2) (\* At least 12 credits should be chosen.)

[General] Introduction to Economics (3) Intellectual Property Right (3) Life and Law (3) Understanding of Social History (3) Logic (3)Mathematics 2 (3) Mathematics 1 (3) Food and Nutrition (3) Reading & Discussion in English (3) What is History (3) General Physics 1 (3) General Biology 1 (3) Appreciation of Music (3) General Chemistry 1 (3) Human and Values (3) Debate and Democratic Intelligence (3) General Physics 2 (3) The Life and Literature of the Korean People (3) General Biology 2 (3) Contemporary Science Studies (3) General Chemistry 2 (3) Understanding of Modern Society (3) Environmental Science (3) Understanding of Architecture (3) Korean History (3) Classical Literature and Korean Culture (3) The Strategy of Speaking (3) Appreciation of Arts (3) Democracy and Community (3)

Psychology of Human Sexuality (3) Artistic Sensibility and Aesthetics (3) Understanding Creative Problem-Solving Process (3) Introduction to Philosophy (3) Modern Society and Human Rights (3) Introduction to Contemporary Korean Politics (3) Introduction to Statistics and Practice (3) (\* At least 32 credits should be chosen.)

### **Credits Required**

At least 9 credits from each field : Creativity, Sensibility, Community Values.

### Careers

Students who complete the premedical program are automatically admitted to the Medical School.

# Dept. of Medical Science

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Based on the CNU educational philosophy of pursuing truth, creativity, and service to the community, our goal is to foster students possessing moral character and human compassion essential in caring for human life, as well as commitment in pursuing the fundamental truths in medicine, for the prevention and treatment of diseases harmful to human beings. In doing so, we aim to cultivate medical personnel who can contribute to the welfare of mankind and lead the advancement of medical science.

- 1. To instill our students with the basic spirit of philanthropy and service
- 2. To train our students to have the ability to grasp and solve local and national health issues
- 3. To train our students to provide primary health care by learning the basic theories of medicine and acquiring clinical training
- 4. To promote the pursuit of professional medical knowledge and continuing education after graduation
- 5. To ensure that our students possess the necessary qualifications for conducting creative research and medical education

Medical School has a distinguished history of producing the nation's finest physicians and researchers. Its reputation continues to grow today as the center for medical education and source of outstanding basic and clinical research with global medical applications.

Our core mission is training the next generation of physicians and scientists who will devote their life to help society and improve the human conditions. Medical School provides today's health sciences students with thoughtful and humanistic mentoring by our distinguished and committed faculty, and clinical experiences provided by state-of-the-art learning facilities. We remain committ to provide doctors and scientists with outstanding education in both the art and science of medicine.

Medical School's mission is to provide the best medical education to students, and quality service to its local and international community. We run two medical campuses in Hakdong and Hwasun, both of which are equipped with cutting-edge facilities. We also have outstanding research programs in cardiology, cancer, neurosciences, and infectious diseases. Many other programs provide a network of opportunities for medical and health sciences students.

# Medical School

The Medical School is committed to teaching and training students through the most modern and efficient academic programs. The programs are aimed at producing able primary care physicians and creative medical scientists. To meet these institutional objectives, the Medical School offers both undergraduate and graduate courses which lead to advanced degrees including Master's and Doctorates

The undergraduate degree is composed of a 2-year premedical and a consequent 4-year medical course.

### Professors

271 full-time faculty members (Professors: 173, Associate Professors: 68 and Assistant Professors: 30) and 13 teaching assistants are currently employed. The interests of members and contact profiles are located online: http://medicine.jnu.ac.kr.

### Degree Requirements

Students are required to earn 165 credits (required) and 4 credits (electives). At the end of the fourth year, every student who has fulfilled these requirements will be recommended to the President of Chonnam National University for a Doctor of Medicine Degree (M.D.).

### What Do You Study?

Graduates and graduate candidates are unconditionally recommended to the National Board of Medical Examinations for a license to practice medicine in Korea.

#### [Required Courses]

### **First Year**

Lab in Basic Medical Science (2) Problem-Based Learning 1 (1) Patient-Doctor-Society 1 (2) Structure and Function of the Human Body (2) Cadaver Dissection Course (3) Basic Medical Science in Digestive System and Metabolism (4) Microbiology and Parasitology (4) Basic Neuroscience (4) Basic Medical Sicence in Endocrine and Reproductive Systems (3) Introduction to Pathology and Pharmacology (3) Lab in Histology and Pathology (2) Basic Medical Science in Cardiovascular and Urinary Systems (4) Basic Medical Science in Pulmonology and Hematology (2) Introduction to Clinical Medicine 1 (2)

Introduction to Clinical Medicine 2 (2) Preventive Medicine (4)

### Second Year

Growth and Development (3) Clinical Medicine in Reproductive System (4) Clinical Medicine in Digestive System (5) Clinical Medicine in Cardiovascular System (4) Allergology and Clinical Immunology (2) Clinical Medicine in Respiratory System (4) Clinical Medicine in Musculoskeletal System (3) Infectious Diseases (3) Clinical Medicine in Endocrinology and Metabolism (3) Problem-Based Learning 2 (1) Clinical Medicine in Nervous System (4) Clinical Medicine in Urinary System (3) Clinical Hemato-oncology (3) Patient-Doctor-Society 2 (1) Anesthesiology and Emergency Medicine (2) Dermatology, Opthalmology, Otorhinolaryngology (3) Psychiatry (3)

### **Third Year**

Clerkship in Infectious Diseases (1) Clerkship in Endocrinology & Metabolism (1) Clerkship in Rheumatology (1) Clerkship in Urology (1) Clerkship in Obstetrics and Gynecology (4) Clerkship in Pediatrics (4) Clerkship in Gastroenterology (2) Clerkship in Cardiology (2) Clerkship in Neurology (2) Clerkship in Neurosurgery (1) Clerkship in Nephrology (1) Clerkship in Ophthalmology (1) Clerkship in Allergy (1) Clerkship in Surgery (5) Clerkship in Emergency Medicine (2) Clerkship in Otorhinolaryngology and Head & Neck Surgery (1) Clerkship in Psychiatry (4) Clerkship in Orthopedic Surgery (1) Summative Evaluation 1 (1) Clerkship in Dermatology (1) Clerkship in Hematology & Onocology (1)

Clerkship in Pulmonology (2) Clerkship in Thoracic and Cardiovascular Surgery (1) Transition to Clinical Clerkship (1) Clinical Reasoning 1 (2) Patient-Doctor-Society 3 (2) Clinical Reasoning 2 (2)

#### Fourth Year

Clerkship in Anesthesiology and Pain Medicine (1) Summative Evaluation 2 (1) Clerkship in Family Medicine (1) Clerkship in Radiation Oncology (1) Clerkship in Forensic Medicine (1) Clerkship in Plastic and Reconstructive Surgery (1) Clerkship in Radiology (2) Clinical Reasoning 3 (2) Clinical Presentation-Based Practice (2) Clerkship in Rehabilitation Medicine (1) Clerkship in Community Medicine (1) Clerkship in Occupational and Environmental Medicine (1) Clerkship in Laboratory Medicine (1) Specialized Clinical Clerkship (2) Sub-intership (2) Clerkship in Nuclear Medicine (1) Patient-Doctor-Society 4 (1)

# Department o: Anatomy

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### Mission

The Department of Anatomy provides high quality teaching of anatomical sciences to medical students and graduate students as appropriate. The Department is responsible for teaching several courses including Anatomy, Neuroanatomy, Histology, and Embryology and periodically offers electives and special courses for other groups of students and faculty within the Chonnam community. Four faculty members conduct research in various fields of medical science. The Department also administers Body Donation Program to allow Gwangju and Chonnam residents the opportunity to donate their bodies for research and teaching.

### Research Interests

- 1) Clinical and basic proteomics study on oncologic and metabolic diseases
  - ① Discovery of biomarkers of diagnosis (early detection and relapse), prognosis, treatment response prediction.
  - 2 Deciphering of their molecular mechanisms
- Clinical and imaging anatomy all aspects as applied to medical practice, new developments in clinical anatomy and teaching techniques
- 3) Understanding mechanical functions underlying development of urologic cancers
  - ① Elucidation of molecular mechanism involved in the progression of hormone resistant prostate cancer
  - 2 Development of biomarkers to predict recurrence of cancers of prostate and bladder
- 4) Study on metabolic change in central nervous system (CNS) diseases
  - ① The related molecular mechanisms between metabolic diseases and CNS diseases
  - 2 Discovery of anti-aging mechanisms to cure neurodegenerative diseases

- Seung Won Lee [Professor, Anatomy and Histology, Proteomics, seunglee@jnu.ac.kr]
- Kwang Il Nam [Professor, Anatomy, atlas@jnu.ac.kr]
- Chae Yong Jung [Professor, Histology and Embryology, chjung@jnu.ac.kr]
- Ju Hyun Song
   [Professor, Neuroanatomy, Histology, juhyunsong@jnu.ac.kr]

# Department of Physiology

\_\_Contact Information Phone: +82-61-379-2812

# Research Interests

- 1) Development of cell therapy strategies for hearing loss using human mesenchymal stem cells
- 2) Genetic and epigenetic control of mesenchymal stem cell fate during neurogenic differentiation
- Study of stem cell transplantation for degenerative CNS disease including Alzheimer's disease, Parkinson's disease, and stroke
- 4) Neurophysiological mechanisms of vestibularly-evoked responses of the olivocerebellar tract
- 5) Hormonal and neural mechanisms responsible for the pathogenesis of hypertension
- 6) Electrophysiological study on the ion channels of the nervous system

- Jong Seong Park
   [Professor, Neurophysiology, parkjs@jnu.ac.kr]
- Han-Seong Jeong
   [Professor, Neurophysiology, Stem Cell Bioengineering, hsjeong@jnu.ac.kr]
- Sujeong Jang
   [Associate Professor, Stem cell, Molecular biology, Neurophysiology, sujeongjang@jnu.ac.kr]

# Department of Biochemistry

*\_\_\_Contact Information* Phone: +82-61-379-2778

### Research Interests

Biochemistry and molecular biology are essential learning as an academic foundation for medical students to identify the cause of diseases and develop therapies based on the molecular structure and function of biomolecules.

In the department of biochemistry, lectures including the structure and metabolism of proteins, lipids, carbohydrates, and nucleic acids, the regulation of metabolism, hormones, biological membranes, molecular biology, nutrition, cancer, aging, etc. are given to students, thereby widening their understanding of biochemistry.

For first-year medical students, the 'Biochemistry' class is distributed in the various integrated courses and participate mainly in the "Human Physiology and Metabolism", and for the second-year pre-medical students, a 'Cell and Molecular Biology' course is offered (total: 45 hours of lectures; 3 credits). Biochemistry experiments are provided as a "Basic medical experiments" course in conjunction with the departments of microbiology, physiology, and pharmacology (total: 64 hours of practice; 2 credits). There are also lectures, experiments, and seminars for graduate students.

In the department of biochemistry, various experimental devices are equipped to study the fields of biochemistry and molecular biology. The main research topics include among others: studying the role of reactive oxygen species and the development of antioxidants, the elucidation of the aging process, the study of signaling in carcinogenesis and angiogenesis, the study of regulatory mechanisms by miRNA, etc.

### Professors

• Young Do Jung

- [Professor, Cancer Biology: Signal Transduction and Genetic Regulation in Angiogenesis and Cancer Metastasis, ydjung@jnu.ac.kr]
- Kee Oh Chay [Professor, Cell Adhesion and Migration in Cancer Metastasis, kochay@jnu.ac.kr]
- Seung Rock Lee
   [Professor, Redox Biology and Medicine:
   Redox Regulation of Tumor Suppressor PTEN and Protein Tyrosine Phosphatases, Enzyme

Activity and Cellular Function of Selenoproteins, Ascorbic Acid (Vitamin C) Derivatives. leesr@jnu.ac.kr]

- Kyung A Cho [Professor, Cell Signaling in Cellular Senescence and Immunosenescence, kacho@jnu.ac.kr]
- Young Kook Kim [Professor, RNA biology, ykk@jnu.ac.kr]
- Bo Ra Lee
   [Assistant Professor, neurodevelopment, molecular biology, blee03@jnu.ac.kr]

# Department of Pathology

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The study of pathology is divided into General Pathology and Systemic Pathology. The former is concerned with the basic reactions to abnormal stimuli that underlie all diseases, while the latter examines the abnormal responses of specialized organs and tissues. The four aspects of disease process (etiology, pathogenesis, morphologic changes, clinical significance) are studied by means of lectures, laboratory work, classroom demonstrations, seminars, case studies, as well as through the use of fresh and museum specimens, along with a full collection of slide teaching sets. The first portion of the course is devoted to the subject of cellular injury and cellular death, cellular growth and differentiation, inflammation and repair, hemodynamic disorders, genetic disorders, disease of immunity, infectious diseases, and neoplasia. The rest deals with special systemic pathology, such as cardiology, hematology, pulmonology, gastroenterology, male and female reproductive systems, neuroscience, nephrology, endocrinology, and the musculoskeletal system.

# Professors

- Chan Choi [Professor, Pathology of Urinary Tract, cchoi@jnu.ac.kr]
- Jong Hee Nam [Professor, Gynecologic Pathology, jhnam@jnu.ac.kr]
- Jae Hyuk Lee [Professor, Pathology of Gastrointestinal Tract and Hepatobiliary/Pancreatic System, jhlee@jnu.ac.kr]
- Ji Shin Lee [Professor, Breast Pathology,

jshinlee@hanmail.net]

- Yoo Duk Choi [Professor, Respiratory pathology, drydchoi@jnu.ac.kr]
- Kyung Hwa Lee
   [Professor, Neuropathology, gastrointestinal pathology, oncology, mdkaylee@jnu.ac.kr]
- Sung Sun Kim [Associate Professor, Uropathology, Renal pathology, oncology, kimsspathology@jnu.ac.kr]

# Department of Pharmacology

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Our research ranges from classical pharmacologic work to gene-based work. The following contains recent research interests of faculty members in our department:

- 1. Study of drug metabolism and pharmacogenomics
- 2. Characterization of transcriptional factors involved in cardiovascular diseases
- 3. Investigation of the effects of altering master gene expression on regulating osteoclast function.
- 4. Characterization of the candidate genes involved in regulation of cell cycles
- 5. Functional analysis of vascular smooth muscles
- 6. Development of animal disease models for research into cancer, cardiovascular diseases, and bone metabolic diseases; and the evaluation of the therapeutic potential of specific gene regulation using animal disease models
- 7. Philosophical reflection on drug therapy and problems of modern medicine
- 8. Research on medical humanities and ethics
- 9. Research on the roles of microglia and neuroinflammations in psychiatric disorders
- 10. Study of the sex-difference in the brain and behavioral patterns

- Young Chae Lim [Professor, Clinical Pharmacology, limyc@jnu.ac.kr]
- Hyun Kook [Professor, Cardiovascular Pharmacology, kookhyun@jnu.ac.kr]
- Nack Sung Kim [Professor, Molecular Biology, nacksung@jnu.ac.kr]

- Jung Min Kim [Professor, Molecular Biology, jungminkim@jnu.ac.kr]
- Gwang Hyeon Eom [Associate Professor, Molecular Pharmacology, eomgh@jnu.ac.kr]
- Park Hyun Sun [Assistant Professor, Neuropharmacology, hspark91@jnu.ac.kr]

# Department of Microbiology and Immunology

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The graduate program in our department offers comprehensive and goal-oriented education, as well as intensive research training, in order to produce qualified and motivated young scientists who will be future leaders in the field of microbiology and immunology. It is our belief that collaborative research among our faculty members will maximize our potential to obtain greater achievements and to reach our goals sooner. Therefore, students in our department are encouraged to become active members of interactive and innovative research groups. Our research interests include cellular microbiology, oral microbiology, immunology, and cancer biology.

# Professors

- Joon Haeng Rhee [Professor, Immunology, Vaccinology, Molecular Microbiology, jhrhee@jnu.ac.kr]
- Young Jin Hong [Professor, Cellular Microbiology, yjhong@jnu.ac.kr]
- Jae Ho Jeong
   [Associate Professor, Infection and Infection control, Bacterial molecular pathogenesis, Bacteria mediated cancer therapy,

jeongjaeho@jnu.ac.kr]

- Soo Hyun Kim [Assistant Professor, Clinical microbiology, Mycology, alpinboy@jnu.ac.kr]
- Jae Ho Cho [Professor, T cell immunobiology, jh\_cho@jnu.ac.kr]
- Yoonjoo Choi [Associate Professor, Immunoinformatics yoonjoo.choi@jnu.ac.kr]

# Department of Preventive Medicine

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Preventive medicine is an unique specialized field of medical practice composed of distinct disciplines that utilize skills focusing on the health of individuals, communities, and defined populations in order to prevent disease, prolong life and promote health through the organized efforts and informed choices of society, organization, public and private, communities and individuals. It is also called 'public health', which puts stress on the community rather than individuals, or 'social medicine' relating social factors to the disease.

Three special areas of preventive medicine are epidemiology, environmental and occupational health, and health policy and management. Epidemiology program has conducted two large-scale population-based cohort studies (Namwon study and Dong-gu study) to determine the etiologies of and effective preventive measures for cardiovascular disease, cognitive decline, osteoporosis and cancer. Health policy and management program deals with community-based health program development. Environmental and occupational medicine works to assess and reduce risks to individuals and communities from chemical, biological and physical hazards in the home, community, school, and workplace environments.

## Professors

- Jun-Ho Shin [Professor, Health Policy and Management, jhshinx@gmail.com]
- Min-Ho Shin [Professor, Epidemiology, mhshinx@naver.com]

Sun-Seog Kweon [Professor, Cancer Epidemiology, ujingogo@paran.com]
Hye-Yeon Kim [assistant Professor, Health Policy and Management, hykim615@gmail.com]

# Department of Forensic Medicine

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Forensic medicine is structured with theoretical education in the third year of medical school and subsequent practical training in the fourth year. Lectures in forensic medicine, 12 hours in the first and second quarters of the third year, provide the basic and translational medicolegal knowledge necessary for application to both criminal and civil law and for medical practice, which consists of the causes of sudden unexpected natural death, pathophysiology of shock, post-mortem inspection, post-mortem changes, injuries, asphyxia, poisoning, several kinds of accidental death, DNA fingerprinting, as well as pertinent medical documents and medico-legal jurisprudence. The forensic medicine practical training conducted in the fourth year of medical school consists of legal autopsies, medico-legal case analysis, case presentation, and a tour of the National Forensic Service.

### Professors

 Jong Tae Park
 [Professor, Forensic Pathology and Anthropology, Molecular Biology, jtpark@jnu.ac.kr]
  Hyung Seok Kim [Professor, Forensic Medicine, Traumatic Brain Injury, Neurovascular biology, veritas@jnu.ac.kr]

# Department of Medical Education

*\_\_\_Contact Information* Phone: +82-61-379-2601

The Department of Medical Education was established at Chonnam National University Medical School (CNUMS) in 2001. We have focused on nurturing primary doctors, medical scientists, and medical educators compatible with the educational purposes of CNUMS. We participate in a wide range of educational activities. We offer many excellent courses and programs related to health professional education and research. We provide expertise in curriculum development, innovation in teaching and learning methods, support for the faculty program and student learning, and research in medical education.

# Professors

• Eun Kyung Chung [Professor, Medical Education, ekcmedu@jnu.ac.kr] • Eui Ryoung Han [Assistant Professor, Medical Education, jolie@jnu.ac.kr]

# Department of Biomedical Sciences

*\_\_\_Contact Information* Phone: +82-61-379-2515

## History

The Department of Biomedical Sciences was established on January 3, 2006.

### Education

We provide the following courses: Basics for Medical Research (3 credits), Genetics (3), Organic Chemistry (3) and Startups and Entrepreneurship (1).

### Research Interest

We study Biomedical Sciences via Biophysics, Cell Biology, Developmental Biology, Genetics, Molecular Biology, Molecular Imaging, Nanobiology, Neuroscience and Organic Chemistry.

Below are our faculty members' research interests.

1. Prof. In-Kyu Park: Delivery of genes and proteins into living organisms

Studies to increase the efficiency of the delivery of genes and proteins into living organisms, which would help to develop effective therapeutic modalities against human diseases.

2. Prof. Hee-Young Shin: Clinical epidemiology and research ethics

Prof. Hee-Young Shin works in the area of clinical epidemiology and research ethics. Dr. Shin is mainly interested in the scientific and ethical conduct of clinical trials. Clinical epidemiology and biostatistics are the basic elements to implement scientific clinical research. Moreover, ethical considerations are very important in developing innovative medical treatment. The other areas of interest are geriatric diseases (including dementia) and public health.

3. Prof. Seok-Yong Choi: Fate specification of glial cells

The central nervous system (CNS) consists of neurons and glial cells. Knowledge about fate specification of cells in the CNS is essential to develop therapeutic modalities for CNS diseases, especially neurodegenerative diseases. Whereas the fate specification of neurons has been studied extensively, research into glial cells remains unclear. Our research group investigates the fate specification of glial cells, especially ependymal cells, in the zebrafish model using genetic and cell biological approaches.

#### 4. Prof. Jihoon Jo

Research in our lab focuses on a wide range of projects from molecular mechanisms of synaptic plasticity which is a strong model for learning and memory, and Neurodegenerative disease including Alzheimer's disease.

#### 5. Prof. Hoon Hyun: Molecular Imaging

The lab focuses on the development of novel contrast agents for tissue- and organ-specific targeting and diagnosis. Of particular interest is "Structure-Inherent Targeting," where small molecules can be used for targeting, imaging, diagnosis and therapy by specifically visualizing target tissue with high optical properties and by avoiding nonspecific uptake in normal background tissue.

6. Prof. Stan Razvan: Biophysics and Immunology

We are investigating with biophysical, molecular dynamics and immunological techniques the mechanisms underlying the thermal transfer in immune complexes, at physiological and fever temperatures. The lab is also interested in the ex vivo mechanisms underlying molecular memory formation and duration in protein complexes, upon repeated stimulations.

## Professors

 In Kyu Park [Professor, Non-viral Gene Therapy, Biomedical Engineering, pik96d@gmail.com]

 Seok Yong Choi [Professor, Developmental Biology & Drug Development, zebrafish@jnu.ac.kr]

 Hee Young Shin [Professor, Pharmacoepidemiology & Bioethics, hyshin@jnu.ac.kr]

- Ji Hoon Jo
   [Professor, Neuroscience, Jihoon.Jo@jnu.ac.kr]
- Hoon Hyun
   [Associate Professor, Molecular Imaging, Cancer Therapy & Drug Delivery, hhyun@jnu.ac.kr]
- Stan Razvan
   [Associate Professor, Biophysics and Immunology, strazvan@jnu.ac.kr]

Department of Parasitology and Tropical Medicine

*Contact Information*\_Contact Information

### Research Interest

The Department of Parasitology and Tropical Medicine was established in 2019 at Chonnam National University Medical School (CNUMS). The visions of our department are i) to control endemic parasitic infections in Korea and finally to improve public health; ii) to educate medical students with a practical and globalized point of view, and iii) to contribute the development of parasitology as a part of basic medicine.

Parasitology is the study of parasites, their hosts, and the relationship between them. A parasite is an organism that live on or within another organism called the host. These include organisms such as: protozoa, nematoda, cestoda, trematoda, and medically important arthropoda. Medical parasitology is the subject which deals with the parasites that infect humans, the diseases caused by them, clinical features and the response generated by humans against them. It is also concerned with the various methods of their diagnosis, treatment and finally their prevention and control. Tropical diseases are endemic diseases in tropical and subtropical areas. There are many kinds of diseases such as malaria, cholera, dengue fever, sleeping sickness, and yellow fever. Tropical medicine is a medicine that deals with the pathophysiology, diagnosis and treatment of Tropical diseases.

The vision of our research is to overcome parasitic diseases and tropical diseases and to contribute to humanity and society as a basic and true medical scientists. The goals of the research are i) to study Parasites for the treatment of tropical diseases, ii) to study the relationship between Parasites and hosts to overcome intractable immune system diseases; and iii) to utilize useful parasites as translational research.

# Department of Internal Medicine

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The Department of Medicine has 9 subdivisions: gastroenterology, cardiology, pulmonology and critical care medicine, endocrinology and metabolic disease, nephrology, hemato-oncology, infectious disease, allergy, and rheumatology.

Medical students are instructed in case-orientated and problem-solving approaches to diverse medical problems. From their third year, students are grouped into small units for clinical practice and turn subdivisions every week where they learn clinical skills and complete their knowledge under close contact with professors, fellows, residents, and patients. Faculty deliver weekly lectures to residents and students. Also, there are weekly case conferences to show typical or difficult clinical problems and journal reviews.

### Professors

### Gastroenterology

- Sung Kyu Choi
   [Professor, Gastroenterology, choisk@jnu.ac.kr]
- Hyun Soo Kim [Professor, Gastroenterology, dshskim@jnu.ac.kr]
- Young Eun Joo [Professor, Pancreatobiliary Disease, yejoo@jnu.ac.kr]
- Chang Hwan Park
   [Professor, Gastroenterology, p1052ccy@hanmail.net]
- Wan Sik Lee [Professor, Gastroenterology, jadelook@hanmail.net]
- Sung Bum Cho [Professor, Hepatocellular carcinoma eunabumi@jnu.ac.kr]
- Seon Young Park [Professor, Gastroenterology, drpsy@naver.com]
- Dae Seong Myung

[Assistant Professor, Gastroenterology, colonoscopy, underlove@jnu.ac.kr]

- Yoon Jae Hyun [Assistant Professor, Gastroenterology, Hepatology, zenmake14@gmail.com]
- Eunae Cho [Assistant Professor, Gastroenterology, Pancreatobiliary diseases, eunaecho@jnu.ac.kr]

### Cardiology

- Myung Ho Jeong
   [Professor, Intervention, Atherosclerosis, myungho@chollian.net]
- Youngkeun Ahn [Professor, Intervention, Atherosclerosis, cecilyk@hanmail.net]
- Hyung Wook Park
   [Professor, Electrophysiology, Arrhythmia, Syncope, mdhwp@chol.com]
- Young Joon Hong [Professor, Intervention, Imaging, Atherosclerosis, hyj200@hanmail.net]

- Hyun Ju Yoon [Professor, Echocardiography, Valves, Heart Failure, ann426@hanmail.net] · Ju Han Kim [Professor, Intervention, Hypertension, drfrog@dreamwiz.com] · Kye Hun Kim [Professor, Echocardiography, Valve, Heart Failure, christiankyehun@hanmail.net] · Namsik Yoon [Professor, Electrophysiology, Arrhythmia, Sudden Cardiac Death, Cardiac Implantable Electronic Device, NSAIDs77@hitel.net] · Doo Sun Sim [Professor, Intervention, Atherosclerosis, true1021@gmail.com] · Ki Hong Lee [Professor, Electrophysiology, Cardiac Device, Atrial fibrillation, Sudden cardiac arrest drgood2@naver.com] · Jae Yeong Cho [Associate Professor, Cardiology, jaeycho@jnu.ac.kr] • Min Chul Kim [Associate Professor, Interventional cardiology, Cardiac intensive care, Mechanical circulatory support, kmc3242@hanmail.net] · Kyung Hoon Cho [Associate Professor, Cardiology, zarazoro@hanmail.net] · Yoo Ri Kim [Associate Professor, Cardiology, geniusyul@gmail.com] Pulmonology
- Young Chul Kim [Professor, Pulmonary and Critical Care Medicine, kyc0923@jnu.ac.kr]
- Sung Chul Lim [Professor, Pulmonary and Critical Care Medicine, lscmd@jnu.ac.kr]
- Yu Il Kim

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- Hong Joon Shin [Associate Professor, Pulmonology, ShinHJ@jnu.ac.kr]
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# **Endocrinology and Metabolism**

- Dong Jin Chung [Professor, Endocrinology and Metabolism, Bone Vand Mineral Metabolism, Adrenal Metabolism, djchung@jnu.ac.kr]
- Ho Cheol Kang [Professor, Endocrinology and Metabolism, Diabetes Mellitus, drkang@jnu.ac.kr]
- Jin Ook Chung [Professor, Endocrinology, Diabetes mellitus, jochung@jnu.ac.kr]
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# Nephrology

- Nam Ho Kim [Professor, Acute Renal Failure, Diabetic Nephropathy, nhk111@jnu.ac.kr]
- Soo Wan Kim [Professor, Chronic Kidney Disease,

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- Seong Kwon Ma [Professor, Chronic Kidney Disease, Hemodialysis, Diabetic Nephropathy, Hypertension, Glomerulonephritis, drmsk@jnu.ac.kr]
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### Hemato-oncology

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- Je Jung Lee
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- Sang Hee Cho [Professor, Gastric Cancer, Colon Cancer, sh115@chollian.net]

- Deok Hwan Yang [Professor, Hematopoietic Stem Cell Transplantation, Lymphoid Malignancy, drydh1685@hotmail.com]
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- Jun Eul Hwang [Professor, Medical Oncology, hjunyl@naver.com]
- Jae Sook Ahn [Professor, Hematology-Oncology, f0115a@jnu.ac.kr]
- Hyun Jeong Shim [Associate Professor, Medical oncology, Breast cancer, Head and neck cancer, hjnhj@jnu.ac.kr]
- Seo-Yeon Ahn [Assistant Professor, Hematology-Oncology, armful12@hanmail.net]

### **Infectious Diseases**

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- Seung Ji Kang [Associate Professor, Infection, sseungi@hanmail.net]
- Kim Uh Jin [Assistant Professor, Infection, astralio@naver.com]
- Kim Seong Eun [Associate Professor, Infection, favorofgod@hanmail.net]

### Allergy and clinical immunology

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### Rheumatology

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- Tae Jong Kim [Professor, Clinical and Basic Research on Spondyloarthritis (especially Ankylosing Spondylitis), ktj1562@jnu.ac.kr]
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# Department of Surgery

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#### Sophomore course

The lecture course, 147 hours (7 credits) in total, covers general problems and must be taken for three quarters. There is an examination at the end of each quarter.

### Junior and Senior course

The clerkship is 3 weeks: a week in the outpatient department, a week in gastrointestinal and hepatobiliary surgery, and a week in endocrinologic and pediatric surgery. The workload for clerks includes ward rounds, case assignments, and informal discussions with faculty surgeons as they appear in weekly schedules. All students should be prepared to participate in preoperative conferences and to assist at operations. Students are exposed to diseased patients who can or should be treated by operative intervention. Students participate in outpatient and inpatient care. They are expected to obtain enough experience in wound care and be familiar with important emergency procedures. Every Friday, case presentation is done by students, and an examination is given.

#### Divisions

Gastroenterologic Surgery, Colorectal Surgery, Hepaticobiliary and Pancreatic Surgery, Endocrine Surgery, Pediatric Surgery, Vascular and Transplantation Surgery, Trauma Surgery

# Professors

### Gastroenterologic Surgery

- Dong Yi Kim [Professor, Gastric Cancer and Benign Gastric Diseases, Trauma, dockim@jnu.ac.kr]
  Young Kyu Park [Professor, Gastric Cancer and Benign Gastric Diseases, parkyk@jnu.ac.kr]
- Oh Jeong
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- Ho Gun Kim [Associate Professor, Gastric Cancer and Benign

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 Mi Ran Jung [Assistant Professor, Gastroenterologic Surgery, miranjung0714@gmail.com]

### **Colon and Rectal Surgery**

- Hyeong Rok Kim [Professor, Colorectal Cancer, Benign, Proctology, Trauma, drkhr@jnu.ac.kr]
- Jae Kyun Ju [Professor, Colorectal cancer, Benign anal

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- Soo Young Lee [Associate Professor, Colon and Rectal Surgery syleecrs@jnu.ac.kr]
- Han Duk Kwak
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### Hepaticobiliary and Pancreatic Surgery

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- Young Hoe Hur [Professor, Liver, Biliary and Pancreatic Diseases, Laparoscopic Surgery, Liver Transplantation, surgihur@naver.com]
- Hee Joon Kim [Associate Professor, Liver, Biliary and Pancreatic Diseases, Laparoscopic Surgery, Liver Transplantation frvyoung@naver.com]

### **Endocrine Surgery**

 Min Ho Park
 [Professor, Breast Cancer, Endocrine Diseases, thokthokl@hanmail.net]

- Jin Seong Cho [Associate Professor, Breast Cancer, sabiston@hotmailcom]
- Young Jae Ryu [Assistant Professor, thyroid cancer, breast cancer, ryjbrandon@jnu.ac.kr]

### Vascular and Transplantation Surgery

Soo Jin Na Choi [Professor, Pediatric, Vascular and Transplantation Surgery, choisjn@jnu.ac.kr]
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Hyo-Shin Kim [Assistant Professor, Vascular and Transplantation Surgery, gideon@jnu.ac.kr]

### **Traumatic Surgery**

 Jung Chul Kim [Professor, Liver, Biliary and Pancreatic Diseases, Laparoscopic Surgery, Liver Transplantation, 3rdvivace@hanmail.net]

### **Trauma Surgery**

- Younggoun Jo [Assistant Professor, Trauma Surgery thinkjo@jnu.ac.kr]
- Yunchul Park [Assistant Professor, Trauma Surgery hellopyc@jnu.ac.kr]

Department of Obstetrics and Gynecology

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In the Department of Obstetrics and Gynecology, 80 hours of formal lectures for sophomore medical students are offered through the second quarter. The lectures for sophomores cover reproductive endocrinology, infertility, general gynecology, gynecological oncology, phenomena and management of pregnancy, labor and puerperium, in both normal and abnormal circumstances. Four weeks are devoted to a clerkship in the ward for clinical experiences of juniors. Daily clerkship begins with participation in journal meetings, beginning at 8:00 am. Students are encouraged to participate in answering and questioning. The objective of the clerkship is to acquaint the student with the varied aspects of the medical care for women, with emphasis on acquiring the basic skills of gynecologic and obstetrical history taking and physical examination, participating and assuming responsibility in the evaluation and care of outpatients and inpatients, and acquiring practical experience in the operating and delivery room areas with close supervision by the staff.

# Professors

- Yoon Ha Kim [Professor, Perinatology, Genetics, kimyh@jnu.ac.kr]
- Seok Mo Kim [Professor, Gynecologic Oncology, seokmo2001@hanmail.net]
- Chul Hong Kim [Professor, Urogynecology and Reconstructive Pelvic Surgery General Gynecology, hongkim@jnu.ac.kr]
- Moon Kyung Cho

[Professor, Endocrinology and Infertility, chomk@jnu.ac.kr]

- Jong Woon Kim [Professor, Perinatology, Genetics, jwkimmd@jnu.ac.kr]
- Woo Dae Kang [Associate Professor, Gynecologic Oncology, kangwoodae@gmail.com]
- Ju U Chul [Associate Professor, Gynecologic oncology, ddiamo94@jnu.ac.kr]

# Department of Pediatrics

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The Department of Pediatrics has been providing a diverse range of services aimed at achieving good health and well-being for all children since 1945. We provide active clinical services with 9 pediatric subspecialties including neurology, neonatology, hemato-oncology, cardiology, endocrinology, allergy and respiratory disease, nephrology, gastroenterology and infection.

We anticipate multidisciplinary, dedicated services with the launching of the new state-of-the-art CNU Children's Hospital in 2017. Being the largest tertiary referral pediatric hospital in the Chonnam Provice and Gwangju, CNU Children's Hospital offer not only the most effective treatment and care, but also research activities to meet the needs of our patients, families and society in general.

#### **Research interests:**

- 1. Basic research and clinical care on the treatment of hematologic malignancies, solid tumors, hematologic diseases, immune deficiencies, and rare diseases.
- 2. Clinical research on hematopoietic stem cell transplantation.
- 3. Preoperative diagnosis and postoperative care for children with congenital heart diseases. Therapeutic catheter interventions.
- 4. Right ventricular dysfunction in overload right ventricular pressure models in animals.
- 5. Biomarkers of diagnosis and genetic changes associated with vasculitis in Kawasaki disease.
- 6. Variable research on care and prognosis of ELBW (extreme low birth weight) infants.
- 7. The epidemiology and pathogenic mechanisms of perinatal infection and care of intrauterine infections.
- 8. Management of patients with childhood epilepsy, headache diseases, and other developmental disorders.
- Molecular genetic studies for underlying abnormalities of variable neurologic disorders in childhood, clinical studies for the progress of epilepsy in early childhood, and developmental disorders associated with genetic or environmental etiologies.
- 10. Neonatal jaundice and liver diseases, pathogenesis and treatment of childhood obesity, steatohepatitis in children.
- 11. Diabetes mellitus, thyroid disease, precocious puberty, short stature, obesity, and Vitamin D metabolic diseases.
- 12. Pulmonary diseases including respiratory tract infectious disease and congenital pulmonary abnormalities
- 13. Pediatric allergic diseases including asthma, allergic rhinitis, atopic dermatitis and drug allergies.
- 14. Congenital Anomalies of the Kidney and Urianry Tract (CAKUT), glomerulonephritis, acute kidney injury, and chronic kidney disease in children

# Professors

• Hoon Kook

[Professor, Pediatric hemato-oncology, Hematopoietic stem cell transplantation, Genetic Rare Disease Center, hoonkook@jnu.ac.kr]

- Chan Jong Kim [Professor, Pediatric endocrinology, Vitamin D metabolism, Congenital adrenal hyperplasia, cjkim@jnu.ac.kr]
- Young Ok Kim [Professor, Pediatric neurology, Epilepsy, Child Development, ik052@jnu.ac.kr]
- Hee Jo Baek
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- Eun Song Song [Assistant Professor, Neonatology, essong@jnu.ac.kr]
- Hwa Jin Cho [Associate Professor, Pediatric Cardiology, Pediatric Critical Care Medicine, chhj98@gmail.com, mdchohj@jnu.ac.kr]
- Eun Mi Yang [Associate Professor, Pediatric nephrology, nuts99@naver.com, emyang@jnu.ac.kr]
- Eun Lee

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Department of Psychiatry \_\_*Contact Information* Phone: +82-62-220-6146 Fax: +82-62-225-2351

The Department of Psychiatry in Chonnam National University Medical School - one of the oldest and leading faculties of psychiatry in Korea - has devoted more than 60 years to exceptional patient care, innovative research, and teaching. The close collaboration between research and clinics are one of our unique strengths, enabling us to provide patients with the best care available as we work to discover more effective strategies to prevent, control, and treat mental disorders. Researches has been carried out in various areas, particularly in the fields of mood disorders, anxiety disorders, schizophrenia, early intervention, geriatric psychiatry, psychopharmacology, psychiatric epidemiology, sleep medicines, psychosomatic medicines, child/adolescent psychiatry, and psycho-oncology. Our department has published many valuable papers in these areas, and we managed more than 50,000 patients per year in outpatient clinics in two national general hospitals. Also, we have managed several national centers for public mental health, schizophrenia rehabilitation, dementia, and child sexual abuse. Today, we continue our long tradition of established excellence in patient care, teaching, and research.

- Il Seon Shin [Professor, dementia, geriatric psychiatry, organic mental disorder, isshin@jnu.ac.kr]
- Jae Min Kim [Professor, depressive disorders, alcohol and other substance-related disorder, biological psychiatry jmkim@jnu.ac.kr]
- Sung-Wan Kim [Professor, schizophrenia, early intervention, youth psychiatry, community mental health swkim@jnu.ac.kr]
- Ju Yeon Lee [Associate Professor, child and adolescent psychiatry, developmental disabilities, trauma-related disorders, jylee31@jnu.ac.kr]

- Seung Hyong Ryu [Associate Professor, anxiety disorder, bipolar disorder, ryush@jnu.ac.kr]
- Seon Young Kim [Professor, psycho-oncology, psychosomatic medicine, consultation-liaison psychiatry, sykimpsy@jnu.ac.kr]
- Hee-Ju Kang [Associate Professor, mood disorders, psychosomatic medicine, hjkang82@jnu.ac.kr]

# Department of Neurology

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The Department of Neurology provides a total of 33 lecture hours to 2nd year medical students during the 3rd and 4th quarters. Topics of lectures include instruction in neurology, neurologic diagnosis, cerebrovascular disease, dementia, seizure disorder, peripheral nerve disorder, movement disorder, infectious CNS diseases, headaches, and other CNS disorders. The lectures are designed to both satiate and stimulate the student's curiosity for "the secret of the brain." Clinical clerkships in neurology are available to 3rd and 4th year medical students. Students have the opportunity to participate in daily conferences, rounds, neuroimaging seminars, journal club, and group meetings for neurologic examination; assist in diagnostic procedures; and assist the emergency stroke team which is always on call. Operations occur around the clock for both interventional surgery and the early management of patients with potential for strokes.

# Professors

- Myeong Kyu Kim [Professor, Epilepsy, mkkim@jnu.ac.kr]
- Byeong Chae Kim [Professor, Cognitive Neurology, byeong.kim@jnu.ac.kr]
- Man Seok Park
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- Seung Han Lee [Professor, Neuro-ophthalmology, Neuro-otology, Neuromuscular Disease, nrshlee@jnu.ac.kr]
- Seong Min Choi [Professor, Movement Disorder, mvement@jnu.ac.kr]
- Joon Tae Kim

[Professor, Stroke, alldelight2@jnu.ac.kr]

- Tai Seung Nam [Professor, Neuromuscular Disorder, nts0022@jnu.ac.kr]
- Kang Ho Choi [Associate Professor, Stroke, Neurodegenerative disease, Headache, Sleep disorder, ckhchoikang@chonnam.ac.kr]
  Soo Hyun Cho
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- Kyung Wook Kang [Associate Professor, Epilepsy & Sleep, neurology@jnu.ac.kr]

# Department of Dermatology

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The Department of Dermatology conducts both clinical and basic research by 5 faculty members, 10 residents, 2 fellowship, 2 technicians, and individual research associates. Faculty member areas of interest in research are:

#### 1) Mycology

The division of mycology is devoted to the investigation of fungal organisms causing skin diseases. Current interest of this division is to identify Dermatophyte species and Malassezia species, a normal flora of human skin, as a causative organism inducing various skin diseases, including atopic dermatitis and seborrheic dermatitis. The method used in this study includes fungal culture, morphology, PCR, and gene sequencing.

#### 2) Biochemistry and Photobiology

This division of biochemistry is devoted to the investigation of basic biochemical processes involved in normal physiology of skin. For example, the distribution and function of peroxiredoxin, an antioxidant, is identified by immunohistochemical stain and western blot analysis.

#### 3) Dermatopharmacology and Clinical Study

Skin pharmacology and toxicology has been studied under clinical efficacy evaluations using bioengineering measurements of physiological properties of skin. Clinical cosmetic research with various products and skin barrier function are performed with objective evaluation methods such as skin color, capacitance, TEWL(transepidermal water loss), elasticity, and neurosensory functions.

#### 4) Dermatopathology

Our department has kept its own dermatopathology laboratory fot over 25 years. Cumulative histopathologic archives are very useful for retrograde clinical studies, as well as immunopathology and tissue prep for Mohs surgery.

#### 5) PDT and LLLT

Photosensitizer and novel porphyrin derivatives are the research interests for treating acne and both benign and malignant skin tumors. Also, low-level laser therapy(LLLT) using light emitting diode LED) are the main research interests for treating rosacea, photorejuvenation, various pigmentation disorders including melasma or Riehl's melanosis, et al. Industry sponsored clinical studies have been conducted for many years.

# Professors

- Seong Jin Kim [Professor, Dermatotoxicology, Skin Bioengineering, seongkim@jnu.ac.kr]
- Jee Bum Lee [Professor, Laser and Light Therapy,

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# Department of Orthopedic Surgery

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Orthopedic surgery or orthopedics is the branch of surgery concerned with conditions involving the musculoskeletal system. The musculoskeletal system includes bones, joints, ligaments, tendons, muscles, and nerves. Orthopedic surgeons use both surgical and nonsurgical means to treat musculoskeletal trauma, sports injuries, degenerative diseases, infections, tumors, deformities and congenital disorders of extremities and spinal column.

# Professors

- Taek Rim Yoon
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- Sung-Taek Jung [Professor, Oncology and Pediatric Surgery, stjung@jnu.ac.kr]
- Keun-Bae Lee
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- Jong Keun Seon
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- Myung Sun Kim [Associate Professor, Shoulder and Elbow Surgery, Hand Surgery, mskim@jnu.ac.kr]
- Kyung Soon Park [Professor, Hip Joint, Arthroplasty, Osteoporosis and Fracture, chiasma@hanmail.net]
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# Department of Neurosurgery

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The Department of Neurosurgery, one of the largest clinical services at the Chonnam National University Hospital, provides extensive inpatient and outpatient care opportunities. The mission of the department is the advancement of the specialty of neurosurgery through the interrelated efforts of resident training, patient care, and clinical and laboratory research. In particular, the experiences of the faculties fall into virtually every facet of this diverse specialty area. The department is committed to providing the highest quality of neurosurgical care for patients who have an illness or injury that affects the brain, spine, or peripheral nerves. We offer the full range of modern neurosurgical techniques, including cerebrovascular surgery, brain tumor surgery, skull-base surgery, spinal surgery, spinal instrumentation, transsphenoidal surgery, peripheral nerve surgery, stereotactic surgery for movement disorders, epilepsy surgery, pediatric neurosurgery, craniofacial reconstructive surgery, functional surgery, and neuroendovascular surgery. We also have perfected operations since the Neuronavigator system (Brain Lab) Can this be deleted? The sentence is fine without it; if it is kept, something must be added, such as when it was introduced.was introduced.

Research is integral to the department's clinical and academic goals. The department has a well-equipped basic science laboratory space, as well as facilities for clinical research. Current major research projects include brain tumors and molecular neurobiology, cerebral ischemia and experimental models for cerebral aneurysm joined with pharmacology, epilepsy, degenerative spinal disorders, spine injury, and other neurosurgical topics.

The four-year neurosurgery residency program focuses on providing broad academic, clinical, and research experience. We also offer a fellowship for residents interested in further specialization. Clinical internship programs are given to senior students. During the one-week internship, one week of clerkship, students participate in a daily neurosurgical preoperative and postoperative conference, rounds, other seminars, operations, special studies, and emergency care in the emergency and the neurosurgical intensive care unit. Assigned case studies are presented by students and are discussed with staff. Students are evaluated by written examinations, attendance, and the degree of participation in the clinical clerkship. A total of 57 lecture hours are given to third-year medical students during the first and second quarters. The lecture subjects include instruction in neurosurgery, neurosurgical diagnosis, cerebrovascular disease, brain tumors, spinal disorders, neurotrauma, pediatric neurosurgery, functional neurosurgery, and other CNS diseases.

- Shin Jung
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- Tae Sun Kim [Professor, Cerebrovascular surgery, taesun1963@yahoo.co.kr]
- Jung Kill Lee
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- In Young Kim [Professor, Brain Tumor, Head Injuries, Gamma Knife Radiosurgery, kiy87@hanmail.net]
- Sung Pil Joo [Professor, Cerebrovascular surgery, Neurotrauma, nsjsp@jnu.ac.kr]

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- Tae Young Jung [Professor, Brain Tumor Surgery, Neuro-Oncology, jung-ty@jnu.ac.kr]
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Department of Thoracic and Cardiovascular Surgery

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The Department of Thoracic and Cardiovascular Surgery in our hospital originated in 1965. Currently, our department is subdivided into thoracic and cardiovascular centers, and has a rich tradition of dedicated surgeons who provide expert surgical services to patients with all types of diseases.

Our cardiovascular center offers a full complement of cardiac services for acquired heart disease (especially valve repair and replacement, coronary artery bypass grafts, treatment of thoracic aneurysm, and dissection) and congenital heart disease (especially neonatal heart surgery, adult congenital heart surgery).

Our thoracic center is treating patients who have pulmonary disease, mediastinal disease, and esophageal disease. Efficient cooperation within the medical staff encourages accurate diagnosis, surgery and other supportive care. Also, our department provides outstanding medical services to surgical patients through thoracoscopy and the Da Vinci Surgical Robot System.

Since our department involves vital organs critical to human life, we continue to strive to be the best.

- Kook Joo Na [Professor, Thoracic Oncology Thoracoscopic and Robotic Surgery, kjna@jnu.ac.kr]
- In Seok Jeong [Professor, Congenital Heart Disease and Mechanical Ciculatory Support, isjeong1201@gmail.com]
- Sang Gi Oh [Professor, Adult Cardiac and Vascular Surgery, drosg@hanmail.net]
- Sang Yun Song
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- Yo Chun Jung [Associate Professor, valvular heart disease & arrhythmia, yochuni@naver.com]
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- Do Wan Kim [Assistant Professor, Trauma, Surgical critical care, extracorporeal membrane oxygenation therapy, maskjoa@hanmail.net]
- Ju Sik Yun [Associate Professor, General Thoracic Surgery and Thoracoscopic and Robotic Surgery, jusikyun@gmail.com]

# Department of Ophthalmology

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Since its establishment in 1945, the department of ophthalmology at Chonnam National University Medical School has faithfully implemented medical practice, research, and education, aiming to help the public maintain healthy vision. In particular, it is one of the best eye clinics in Korea, and provides professional care by specialists in ocular surfaces, cataracts, glaucoma, retinal and uveal diseases, oculoplasty, strabismus and pediatric ophthalmology, and neuro-ophthalmology using advanced medical equipment.

This department carries out approximately 50,000 procedures in outpatient care, 2,500 operations, and 1,500 specialized laser treatments per annum. In addition, since 1992, it has operated the Chonnam National University Eye Bank and performed about 600 cases of corneal transplantation surgery. In 2007, it carried out the first suture-less corneal endothelial transplantation surgery (DSAEK) in South Korea.

This department actively conducts basic experimental research, as well as much clinical research, by opening a certified animal laboratory for eye diseases. Through this, dozens of research articles, including SCI level international journals, have been published each year and our excellence in research has been recognized domestically and internationally. In addition, since 1996, the department of ophthalmology has hosted a nationwide ophthalmology academic symposium every year.

- Kyung Chul Yoon
   [Professor, Cornea and external eye diseases, Cataract and refractive surgery, Oculoplasty, kcyoon@jnu.ac.kr]
- Sang Woo Park [Professor, Glaucoma, Cataract, exo70@naver.com]
- Hwan Heo [Associate Professor, Strabismus, Neuroophthalmology, Pediatric ophthalmology, hwanheo@jnu.ac.kr]
- Yong Sok Ji [Assistant Professor, Retina, Uveitis, yongsok.ji@jnu.ac.kr]
- Mi Sun Sung [Assistant Professor, Ophthalmology, Glaucoma, sms84831@hanmail.net]
- Hyeon-Jeong Yoon
   [Assistant Professor, Cornea, Cataract, Oculoplasty, yoonhyeonjeong@hanmail.net]

Department of Otolaryngology and Head & Neck Surgery

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Established in 1942, Chonnam National University's Medical School's Department of Otolaryngology-Head and Neck Surgery is one of the oldest otolaryngology departments throughout the country. From the beginning until now, our mission and vision were to devote ourselves to cure patients and overcome diseases in the field. We have a long tradition of enthusiastically taking care of ill patients, especially in the region. Chronic otitis media, dizziness, facial palsy, congenital and acquired hearing loss etc. have been our major targets in the otologic field. Benign and malignant tumors, voice problems and many infectious diseases were

cured in the heads and necks of patients. Finally, Allergic rhinitis, sinusitis, and (reconstructive) facial plastic surgery were done in the rhinologic division.

We are committed to training the next generation of leaders in the field, including medical students, residents, fellows, and post-doctors. Since the opening of our department, we have been sending out a constant stream of outstanding doctors and researchers in the field of otolaryngology on a national scale.

We have embarked on a new era in the treatment of otolaryngologic by conducting clinical and basic research. Our department has been and is performing many clinical trials, by ourselves and also for international companies. We have a research center for hearing regeneration, head and neck cancer, and Nasal physiology & rhinitis. We have performed and pioneered innovative developments in the diagnosis and treatment of ear, nose, and throat diseases.

#### Professors

- Sang Cheol Lim [Professor, Head and Neck Surgery, limsc@hanmail.net]
- Hyong-Ho Cho [Professor, Pediatric Otorhinolaryngology, victocho@hanmail.net]
- Joon Kyoo Lee [Professor, Head and Neck Surgery, joonkyoo@hanmail.net]
- Tae Mi Yoon [Professor, Head and Neck Neoplasm Laryngology, loveteam96@hanmail.net]
- Dong Hoon Lee [Professor, Rhinology, Skull base surgery,

Salivary gland tumor, Pediatric otorhinolaryngology, leen3l@hanmail.net]
Hyung Chae Yang [Assistant professor, Rhinology, Sleep medicine, Allergy, blessed@jnu.ac.kr ]

- Sung Su Lee [Associate professor, Otology, minsunglss@naver.com]
- Hong Chan Kim [Assistant professor, Otology, Voice, earnosethroat@daum.net]

Department of Plastic and Reconstructive Surgery

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During the 2nd year curriculum, a total of 10 hours of lectures are given on various topics including reconstructive plastic surgery, congenital anomalies, hand surgery, head and neck surgery, skin tumors, and trauma (including burns). Students are given the opportunity to pursue a one-week clinical clerkship during the 3rd or 4th year of medical school. Student activities include accompanying rounds, receiving case assignments, and informal discussion sessions with staff. Students observe outpatient care in the outpatient clinic and participate in inpatient care under the guidance of residents. Through bedside teaching, students are expected to gain experience in the field of plastic surgery, become familiar with practical patient care, and attend regularly scheduled departmental conferences.

#### Professors

- Kwang Seog Kim [Professor, Breast Reconstruction, Hand Surgery, Head and Neck Tumor, Microsurgery, pskim@jnu.ac.kr]
- Jae Ha Hwang [Professor, Aesthetic Surgery, Trauma psjhhwang@daum.net]

# Department of Urology

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The Department of Urology was established at Chonnam National University in September 1967. The mission of our department of urology is committed to offering the highest quality urologic care, innovative research programs, an outstanding education for world-class leaders, and the discovery and evolution of new ideas and information about urologic disease, from research to the clinical implementation phases of disease control in the field. The Department of Urology has several subdivisions: Uro-oncology, Voiding Dysfunction, Sexual Medicine, Pediatric Urology, Endourology, Urinary Infection, Prostate Disease, Urinary Trauma and Reconstruction, and Urinary Ultrasonography. Our residency and student program is one of the best in the country.

The Department enjoys the strong support of the Chonnam National University Hospital, which is also affiliated with the Hwasun University Hospital and School of Medicine.

#### Professors

- Kwangsung Park
   [Professor, Sexual Medicine, Prostate disease, uropark@gmail.com]
- Dong Deuk Kwon [Professor, Uro-oncology, Prostate Disease, Female Urology, urokwon@gmail.com]
- Taek Won Kang [Professor, Uro-oncology, sydad@hanmail.net]
- Seung Il Jung [Professor, Uro-oncology, Endourology, Urinary Infection, drjsi51@gmail.com]
- Sun Ouck Kim [Professor, Pediatric Urology, Female Urology, Neurourology, seinsena@hanmail.net]

• KYUNGJIN OH

[Associate Professor, Endourology, Urinary Trauma and Reconstruction, Urinary Ultrasonography, exeokj@hanmail.net]

- Eu Chang Hwang [Professor, Urologic Oncology, Genito-urinary infection, urohwang@gmail.com]
- Chung Ho Seok [Associate Professor, Urologic oncology, Endourology, Sexual Medicine, Andrology, hschung615@gmail.com]

### Department of Anesthesiology and Pain Medicine

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The Departement of Anesthesiology and pain medicine was established at Chonnam National University in 1961. Since that time, the Department of Anesthesiology and pain medicine has offered a full range of educational and research opportunities in anesthesia, critical care, and pain management.

Our Department has focused on specific aspects of each of these areas in which faculty members have established strength or increased potential for development.

The research programs include both basic science and applied clinical sciences. These priority research areas are:

#### A. Cardiovascular Anesthesia Laboratory

Our cardiovascular laboratory focuses on preventing myocardial infarction and its reperfusion injury. The main objective of our laboratory is to search for cardioprotective mechanisms of known or newly manufactured drugs.

In the early 1990's, cardiovascular research focused mostly on hemodynamic effects of study drugs. In that period, Professor Kyung Yeon Yoo, who studied stunned myocardium, performed animal testing using dogs. Nowadays, we are carrying out experiments on rats with an ischemia/reperfusion model. We are also focusing on the Reperfusion Injury Salvage Kinase (RISK) Pathway in ischemia/reperfusion injury.

#### B. Research for Critical Care Medicine

The Division of Critical Care is dedicated to the collaborative research that improves the management and outcome of critically ill patients. Over the past several years, our research activities have focused on four topics related to patient outcome, respiratory critical care, sepsis laboratory, and basic research:

- Interventional studies aimed at decreasing the incidence of complications in critically ill patients, such as 'A Comparative Study on Weaning Time of Mechanical Ventilation as Analgesic Strategy Using Different Opioids'
- 2. Animal studies aimed at finding out the protective effects of new materials or drugs against acute lung injury in animal models
- 3. Molecular and cellular investigations on pathophysiology of inflammation and sepsis

#### C. Pain Medicine

The main research interests of this laboratory include the pathophysiological mechanisms of neuropathic, inflammatory, and cancer-related pain to provide rationale for new therapy. The research emphasis is

focused on various neurotransmitters and their receptors, or channels implicated in the modulation of nociception in the spinal cord. We utilize various rodent models inducing chronic pain, behavioral analysis of nociception, and molecular biologic methods.

### Professors

- Myung Ha Yoon
   [Professor, Pain Management, Neuroanesthesia, mhyoon@jnu.ac.kr]
- Sang Hyun Kwak
   [Professor, Critical Care Medicine, Cardiothoracic Anesthesia, shkwak@jnu.ac.kr]
- Seong Wook Jeong [Professor, Anesthetic Pharmacology, Critical Care Medicine, anesman@jnu.ac.kr]
- Jeong Il Choi [Professor, Pain Management, Neuroanesthesia, jichoi@jnu.ac.kr]
- Hong Beom Bae [Professor, Critical Care Medicine, Cardiothoracic Anesthesia, nextphil2@jnu.ac.kr]

- Seong Tae Jeong
   [Professor, Neuroanesthesia, Critical Care Medicine, anesjst@jnu.ac.kr]
- Hyung Gon Lee
   [Associate Professor, Pain Management, Regional Anesthesia, leehg@jnu.ac.kr]
- Woong Mo Kim [Professor, Pain Management, Regional Anesthesia, kimwm@jnu.ac.kr]
- Seong Heon Lee [Associate Professor, Anesthetic Pharmacology, Critical Care Medicine, aneshead@jnu.ac.kr]
- Joung Min Kim [Associate Professor, Cardiothoracic Anesthesia, Transplant Anesthesia, tca77@jnu.ac.kr]

### Department of Radiology

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Accurate diagnosis is the starting line of patient care. Our department of radiology at Chonnam National University aims to offer the best patient health care available.

The department operates various state-of-the-art diagnostic modalities such as 3.0T MRI, 128 channel volume CT, ultrasound, fluoroscopy, mammography, and plain radiography.

Our radiologists perform and provide interpretations of radiologic exams, biopsy procedures guided by ultrasound or CT scans, and also various interventional treatments for vascular diseases, biliary or urinary tract diseases as well as oncologic interventions such as transarterial chemoembolization (TACE) and radiofrequency ablation (RFA).

In addition to clinical practices, we continuously pursue excellence in health care through research, education, and active interaction with fellow clinicians through consultations or conferences.

The department of radiology consists of the following specializations:

- · Abdominal radiology
- · Genitourinary radiology
- · Thoracic radiology
- · Cardiovascular radiology
- · Neuroradiology and Head and Neck radiology
- · Musculoskeletal radiology
- · Breast radiology
- · Pediatric radiology
- · Interventional radiology

#### Professors

 Yun Hyeon Kim [Professor, Thoracic Radiology cardiovascular Radiology, yhkim001@jnu.ac.kr]

 Yong Yeon Jeong
 [Professor, Oncologic Imaging & therapy, Molecular Imaging Gastrointestinal Radiology, yjeong@jnu.ac.kr]

 Woong Yoon
 [Professor, Neuroimaging Neurointervention, radyoon@jnu.ac.kr]

 Sang Soo Shin [Professor, Abdominal, Genito-urinary Radiology, kjradsss@gmail.com]

- Hyo Soon Lim [Professor, Breast Radiology, nicolas-hs@hanmail.net]
- Suk Hee Heo [Professor, Abdominal & Genitourinary Imaging, sheo@jun.ac.kr]
- Ilwoo Park

[Associate Professor, Magnetic Resonance Imaging, Hyperpolarized carbon-13 MR Metabolic Imaging, Artificial Intelligence in Medical Imaging, ipark@jnu.ac.kr]

· Seul Kee Kim

[Associate Professor, Neuro/ Head & Neck imaging, kimsk.rad@gmail.com]

- Byung Hyun Baek [Associate Professor, Neuroradiology & Interventional Neuroradiology, qorqod10@gmail.com]
- Hyoung Ook Kim [Associate Professor, Interventional Radiology, cnurad232@naver.com]
- Byung Chan Lee [Associate Professor, Interventional Radiology, lbcroi@naver.com]

# Department of Radiation Oncology

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The mission of Department of Radiation Oncology is to advance the state of knowledge in radiation oncology, to provide the most optimised radiotherapy, to educate medical students, physicians, radiation technologists, physicists, and to develop state-of-the-art research models that can be translated into clinical trials.

Our faculty members are working in close cooperation with colleagues in surgical and medical oncology to facilitate a comprehensive multidisciplinary team approach for the implementation of qualified cancer management.

About three hundred cancer patients are daily visiting on weekdays. Our department is equipped with two CT-simulators, six linear accelerators including Halcyon, VitalBeam, Novalis Tx, and high dose rate remote controled after-loading system for brachytherapy. We provide a wide range of radiation treatment options including high dose rate 3-D brachytherapy, stereotactic radiotherapy, intensity modulated radiation therapy, total body irradiation, respiratory gated radiotherapy, and image-guided radiotherapy.

Recently, faculty members are actively involved in various prospective clinical trials which are conducted by Korean Radiation Oncology Group and translational research in advanced anticancer treatments including immunotherapy.

#### Professors

- Sung Ja Ahn
   [Professor, Radiation Oncology for Lung and Breast Cancer, ahnsja@jnu.ac.kr]
- Taek Keun Nam [Professor, Radiation Oncology for Gastrointestinal, Genito-Urinary Cancer tknam@jnu.ac.kr]
- Ju Young Song [Professor, Medical Physics (Radiation Therapy Physics), jysong@jnu.ac.kr]
- Mee Sun Yoon [Associate Professor, Radiation Oncology for Lung, Breast, Gynecological Cancer, meesunyoon@jnu.ac.kr]
  Jae Uk Jeong

[Associate Professor, Radiation Oncology for Head and neck tumor, Brain tumor, Esophageal cancer, Hepato-biliary-pancreatic malignancies, jujeong@jnu.ac.kr]

### Department of Laboratory Medicine

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The Department of Laboratory Medicine is devoted to cutting-edge laboratory service, outstanding biomedical research, and comprehensive education in our field. Our department includes six services: diagnostic hematology, clinical chemistry, laboratory immunology, clinical microbiology, transfusion medicine, and cytogenetics & molecular genetics. Our department provides laboratory testing for inpatients and outpatients at Chonnam National University Hospital (CNU) and Chonnam National University Hwasun Hospital (CNUHH). There is a laboratory information system (LIS) that interfaces with the hospital information system.

Research interests:

- Diagnostic molecular biology for hematologic malignancy and blood transfusions
- · Pathogenesis of fungal infections and antifungal susceptibility testing
- Development of disease-specific biomarkers (tumor markers)
- · Diagnostic immunology and molecular diagnostics

### Professors

- Jong Hee Shin [Professor, Clinical Microbiology, shinjh@jnu.ac.kr]
- Myung Geun Shin [Professor, Diagnostic Hematology, Molecular Diagnostics, Cytogenetics, mgshin@jnu.ac.kr]
- Seung Jung Kee [Professor, Diagnostic Immunology, Diagnostic Molecular Genetics, sjkee@jnu.ac.kr]
- Hyun Jung Choi [Associate Professor, Clinical chemistry, hyunjung.choi@jnu.ac.kr]

# Department of Nuclear Medicine

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The Department of Nuclear Medicine provides various diagnostic and therapeutic services for the patients in a safe and non-invasive way. The imaging service furnish functional information along with anatomy for early diagnosis, characterization and determination of severity and prognosis, and prediction of therapeutic responses of diseases. Department provides radionuclide-based therapeutic modalities for cancerous diseases as well as nuclear imaging services for a variety of diseases including many types of cancers, heart disease, gastrointestinal, endocrine, neurological disorders and other abnormalities.

In addition to clinical services, department's research has focused on new innovative imaging technologies to decipher the transformation from normal healthy to abnormal diseased state on biochemical and molecular/cellular level. It also develops the simultaneous Imaging-and-Therapeutic (Theranostics) technology based on the diversification of radiotracers and bioactive molecules/microorganisms.

The ultimate mission/goal of Nuclear Medicine Department is to provide a new avenue with pioneering medical science and technologies for the determination of the status of health, identification of early symptoms and signs for the diseases, prediction of disease courses and the demonstration of precise molecular profile of diseases as a part of the new era of the precision medicine.

#### Professors

- Ho Chun Song [Professor, Nuclear Neurology, Radionuclide Therapy. Medical Radiation Safety, songhc@jnu.ac.kr]
- Jung Joon Min [Professor, Molecular Imaging, Cancer Theragnostics, Nuclear Oncology, jjmin@jnu.ac.kr]
- Chang Ho Lee [Associate Professor, Biomedical optical imaging, Multimodal imaging, Molecular

imaging, ch31037@jnu.ac.kr]

- Seong Young Kwon
   [Associate Professor, Nuclear Oncology, Radionuclide therapy, kwonsy@jnu.ac.kr]
- Ja Hae Kim [Assistant Professor, Nuclear Neurology, Radionuclide Therapy, jhbt0607@jnu.ac.kr]
- Sae-Ryung Kang
   [Associate Professor, Nuclear Oncology, Infection, Imaging, srkang@jnu.ac.kr]

Department of Emergency Medicine *\_\_Contact Information* Phone: +82-62-220-6809 Fax: +82-62-228-7417

The goal of the Department of Emergency Medicine is to provide the highest quality of emergency medical care to our patients within the setting of advanced research, training, and education. The main focus of research and clinical activities of the department is on cardiopulmonary resuscitation such as basic life support, advanced cardiovascular life support, and advanced trauma life support. The department is also a pioneer in the development of novel solutions to improve several critical and interesting clinical areas including toxicology, emergency medical service system, environmental medicine, disaster medicine, and critical care medicine. Through these activities the members of the department are proud to be able to provide cutting-edge and state-of-the-art emergency care in the community.

#### Professors

- Young Il Min [Professor, Advanced Cardiac Life Support, Trauma, minyi46@hanmail.net]
- Tag Heo [Professor, Cerebral Resuscitation, Toxicology, docheo@hanmail.net]
- Byeong Jo Chun [Professor, Toxicology, cbjbawoo@hanmail.net]
- Jeong Mi Moon [Professor, Toxicology, Resuscitation, drmjm@hanmail.net
- Kyung Woon Jeung [Professor, Resuscitation, neoneti@hanmail.net]
- Hyun Ho Ryu [Professor, Trauma, oriryu@hanmail.net]
- Byung Kook Lee

[Professor, Resuscitation, bbukkuk@hanmail.net]

- Yong Hun Jung [Associate Professor, Resuscitation, jungyh@cnuh.com]
- Sung Min Lee [Associate Professor, EMS, Trauma, Hyperbaric Medicine, em00058@jnu.ac.kr]
- Dong Hun Lee [Associate Professor, Resuscitation, Cardiac arrest, Trauma, ggodhkekf@hanmail.net]
- Lee Hyoung Youn [Associate Professor, Prehospital trauma life support, Advance trauma life support, Emergency medicine, Resuscitation, apostle09@jnu.ac.kr]

# Department of Physical & Rehabilitation Medicine

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The Department of Physical & Rehabilitation Medicine (PRM) is active in developing clinical rehabilitation medicine and furthering clinically applied basic rehabilitation science research. This PRM Lab (a.k.a. Dynamic Rehabilitation Medicine Science and Technology Institute Lab) has deep interests in Neuro-Rehabilitation, Musculoskeletal rehabilitation, Pain rehabilitation, Cardiac rehabilitation, Pulmonary rehabilitation, Pediatric rehabilitation, and Geriatric rehabilitation. We have not only general rehabilitative therapeutic facilities for Physical therapy, Exercise therapy, Occupational therapy, and ADLs training but also special laboratory facilities for Neurophysiologic exercise including Electromyogram-Biofeedback training systems and RS (rehabilitation system) models of BTE (Baltimore therapeutic equipment) systems, 3D-Motion analysis systems, Electrodiagnostic Lab I (for electromyographic studies and intraoperative monitoring) and Electrodiagnostic Lab II (for evoked potential studies and transcranial magnetic stimulation studies) for the diagnosis and the management of muscle and nerve diseases, and a Digital infrared thermography Lab for the evaluation of neuromusculoskeletal pain and its outcomes. We also have cutting-edge rehabilitation systems for improving neuronal plasticity such as finger-synchronized robot-assisted hand rehabilitation systems, body weight support treadmill training systems, dynamic balance evaluation and training systems, 3-D motion analysis systems, and repetitive transcranial magnetic stimulation (rTMS) with Neuronavigation Systems (Brainsight<sup>TM</sup>) for noninvasive brain stimulation. Several research areas are in active operation, provided with evidence-based rehabilitation services for the best functional outcome.

The Neuro-Rehabilitation Team deals with the evaluation and management of patients with strokes, traumatic brain injuries, spinal cord injuries, and cerebral palsy. Our main interests of research rest on neurological recovery with neural reorganization and plasticity, and functional recovery. We also provide non-invasive brain stimulation for people with motor impairments, cognitive disorders, aphasia, and central neuropathic pains. Neurological functions can be improved by stimulating focal brain areas using transcranial magnetic stimulation or transcranial direct current stimulation.

The Musculoskeletal & Sports Rehabilitation Team deals with the evaluation and management of people with a broad range of muscle and joint problems such as back, shoulder, knee, arm or hand pain, and any other musculoskeletal pain or dysfunction caused by trauma, overuse, maladaptive lifestyles, or sporting activities. Individuals with acute and chronic injuries, muscle imbalance, and overuse (repetitive strain) injuries participate in a comprehensive pain management program aimed at restoring functional capabilities and increasing functional status to return home and to the wider community.

The Pain Rehabilitation Team deals with any pain patients receive due to neuromuscular or musculoskeletal pathology, and cancer. The aim of pain rehabilitation is also to increase the functional status and quality of life through various pain-relieving interventions.

The Cardiac Rehabilitation Team deals with the functional evaluation and management of patients with cardiovascular diseases using various aerobic exercise equipment, such as: treadmills, bicycles with ergometers, and upper extremity ergometers. The aim of cardiac rehabilitation is to maintain, restore, and increase the optimal physical, medical, psychological, emotional, vocational, and socioeconomic status of the patients and to maximize the quality of life of patients.

The Pulmonary Rehabilitation Team deals with the functional evaluation and management of persons with pulmonary diseases such as chronic obstructive pulmonary diseases, restrictive lung diseases, and intrinsic lung diseases with the goal of achieving and maintaining the individual's maximum level of independence and functioning in the community.

The Pediatric Rehabilitation Team deals with the functional evaluation and management of pediatric patients with developmental delays, cerebral palsy, musculoskeletal problems such as flat feet and torticollis, and congenital anomalies such as myelomeningocele. We evaluate the status of the children thoroughly and discuss plans for current and long-term management, home-care, as well as dispensing information about the prognosis and precautions that may be taken.

The Geriatric Rehabilitation Team focuses on the functional evaluation and management of symptoms and functions of aging individuals to prevent or minimize disabilities and functional deterioration in order to create and maintain healthy longevity.

The Cancer Rehabilitation Team deals with the evaluation and management of patients with pain and neurological symptoms associated with cancer, peripheral polyneuropathy, dysphagia, lymphedema, and so on. Our main interests of research rest on improving quality of life and reducing complications for cancer patients.

The Neuromuscular Electrodiagnosis Team provides neurophysiological approaches in determining the cause of muscular problems (weakness, wasting diseases, spasms, fatigue, etc.) or sensory problems (decreased sensations, abnormal sensations, etc.). Using various electrophysiological tests of muscles and nerves, we can determine the location, severity and recovery status of nerve and muscle lesions.

The Orthotics and Prosthetics Team implement Orthotic devices to help to improve the function of weakened muscles and joints, correct changes in joint structure, and protect weakened joints on the basis of 3-D motion analysis. Prosthetic devices are used for individuals who lost limbs due to accidents or illnesses, or those born without limbs, to regain function. We offer a multidisciplinary clinical service for patients who need orthotic or prosthetic devices while offering courses of study and education for functional improvement.

Finally, this PRM Lab researches the biomedical sciences oriented to rehabilitation medicine and aims to devote itself to the health and longevity of humans.

We also contribute to an environment which provides optimal rehabilitation for the disabled who reside in the local communities of Gwangju and the wider Jeonnam province in cooperation with other national and regional rehabilitation centers.

### Professors

- Sam-Gyu Lee
- [Professor, Brain Neuro-Rehabilitation, Neuro-Musculo-Skeletal Pain Rehabilitation, Geriatric Rehabilitation, sam91@jnu.ac.kr]
- Jae-Young Han
   [Professor, Cardiac Rehabilitation, Neuro-Musculo-Skeletal Pain Rehabilitation, Pediatric Rehabilitation, mhanjy@daum.net]
- Min-Keun Song [Assistant Professor, Physical and Rehabilitation

Medicine, Pediatric Rehabilitation, Neuro-Rehabilitation, Dysphagia Rehabilitation, Neuromuscular Electrodiagnostic Medicine, drsongmk@jnu.ac.kr]

• Park Hyeng-Kyu

[Associate Professor, PSports rehabilitation, Neuromusculoskeletal rehabilitation, spinal cord injury rehabilitation, Neurorehabilitation, Neuromuscular electrodiagnosis, h22jhan@jnu.ac.kr]

## Department of Occupational and Environmental Medicine

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Occupational and Environmental Medicine (OEM) has continued to become more widely recognized as a specialty with unique capabilities for preventing and treating illnesses and injuries related to working and environmental conditions.

Occupational and Environmental Medicine aims to prevent exposure to harmful factors that cause occupational and environmental diseases in advance, and to help with early diagnosis, treatment, rehabilitation and return to work. The mission of Occupational and Environmental Medicine is to: identify agents in the environment and workplace that affect human health, elucidate their mechanisms, develop strategies for confronting their effects, assess and communicate their risks, and share the knowledge obtained. To pursue the mission fully, multidisciplinary practices covering clinical medicine, toxicology, industrial hygiene, epidemiology, law, and other public health sciences are needed.

Occupational and environmental medicine is a medical field that researches to maintain and promote the physical, mental and social health of not only workers but also local people by identifying various harmful factors induced in the workplace and in the general living environment to prevent, treat and manage health disorders no see. The components of research and services include chemical toxicity, heavy metal exposure, solvent toxicity, epigenetics, occupational asthma, occupational lung diseases, occupational skin diseases, occupational neurological disorders, cumulative traumatic disorders, noise-induced hearing loss, comprehensive risk communication, workers' health management, and diseases of healthcare workers among others.

In addition, students have opportunities to get lectures and conduct their practice in the Department of Occupational and Environmental Medicine Clinic.

#### Professors

Won-Ju Park
 [Associate Professor, Occupational &
 Environmental Epidemiology, Workers' Health
 Policy and Management, wonjupark@jnu.ac.kr]

# Research Institute of Medical Sciences

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The Research Institute of Medical Sciences came into existence on November 21, 1979, and contributes to the development of medical sciences and the improvement of public health by studying cooperatively pressing issues. The Center is composed of the Director, General Manager, and research departments, focusing on the following activities:

- Developing research tasks in basic and clinical medicine and offering financial support
- Hosting domestic and overseas academic symposia and delivering presentations of research results sponsored by the Institute
- Publishing journals, newsletters, and medical education materials
- Nurturing competent researchers, offering them chances to study abroad, and supporting discussion sessions
- Providing high-tech equipment for various analysis activities