EWHA’S Research Power

Ewha Womans University

Innovation Ewha: Leading Global Excellence
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Contents

About Ewha Womans University 3
Research at Ewha 5
Ewha’s Vision And Future Strategies 7
Advanced Research Centers at Ewha 9
Creative Convergence Research 11
Ewha’s Leading Faculty 13
Research Institutes 14
University-Industry Collaboration 15
About Ewha Womans University

Korea’s first educational institute for women established in 1886 to contribute to the country’s modernization.
Korea’s first government-accredited four-year university (1946)
The world’s largest women’s university, comprising 14 colleges and 15 graduate schools

### Ewha in Numbers (as of April 2016)
- Alumnae 213,869
- Undergraduate Students 17,601
- Graduate Students 7,040
- Faculty Members 1,001
- Colleges 14
- Graduate Schools 15

### Academics

#### Colleges
- Liberal Arts
- Social Sciences
- Natural Sciences
- Engineering
- Music
- Art & Design
- Education
- Law
- Business Administration
- Science & Industry
- Convergence
- Nursing
- Medicine

#### Graduate Schools
- Pharmacy
- Scranton College
- HOKMA College of General Education
- Special Graduate Schools
- Education
- Social Welfare
- Design
- Theology
- Policy Sciences
- Performing Arts
- Clinical Health Sciences
- Clinical Dentistry
- Teaching Foreign Languages

- Research Institutes 72
- 1 Hospital & 4 Affiliated Schools
- Degrees Conferred Annually
  - Bachelor’s degree 3,500
  - Master’s degree 2,030
  - Doctoral degree 240

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Research at Ewha

1886~1945

• 1886
  Mary F. Scranton founds Ewha Haktang

• 1887
  Opening of Boguyeogwan, Korea’s first hospital for women

• 1900
  Esther Park (Ewha Haktang Class of 1893) earns medical degree, becoming Korea’s first woman physician

• 1910
  Ewha Haktang launches Korea’s first college courses for women

• 1935
  Ewha President Alice R. Appenzeller organizes Cooperative Board to support the school

1946~1999

• 1946
  Ewha becomes Korea’s first accredited university

• 1950
  • College of Medicine
  • College of Pharmacy
  • College of Law

• 1982
  College of Natural Sciences

• 1996
  College of Engineering established, becoming world’s first engineering college for women

2000~Present

• 2003
  1st Phase (2003-2006) of Ewha Intramural Core Competence Development Project conducted in life science and nanoscience

• 2007
  2nd Phase (2007-2010) of Ewha Intramural Core Competence Development Project conducted in life science, nanoscience and biomedical information technology

• 2009-2010
  • Ranked 1st among Korean universities for citations per thesis in evaluation of Asian universities by Chosun Ilbo and QS
  • Opening of Ewha Womans University Cancer Center for Women, the first of its kind in Korea

• 2011
  • Agreement signed to open Ewha-Solvay Global R&I Center, making Ewha the first university to host Solvay’s global R&I center
  • Ewha Womans University Medical Center earns hospital accreditation from Joint Commission International
  • Ewha chosen as operating institution for Korea Advanced Institute of Women in Science, Engineering and Technology
  • Ewha College of Education selected as recipient of Program for Supporting Leading Colleges of Education in Teacher Training from Ministry of Education, Science and Technology

• 2012
  • Ewha named host institution for Korea Basic Science Institute’s Western Seoul Center
  • Ewha selected by Ministry of Education, Science and Technology to participate in Program for Fostering and Supporting Leading Universities in International Cooperation

• 2013-2016
  • Ranked 1st among Korean universities for four years in a row in ‘the Leiden ranking’, which evaluates the quality of the theses of major universities worldwide
  • Ewha Womans University Institutional Review Board earned accreditation from SIDCER-FERICAP (Forum for Ethical Review Committees in Asia and the Western Pacific Region) in 2013
  • Opening of Ewha University-Industry Cooperation Building providing the best environment for creative synergy and global R&BD in university-industry collaboration in 2014
  • Ewha jointly established the Ewha-JAX International Research Center for Cancer Immunotherapy with the Jackson Laboratory (JAX), a globally prestigious genomic medicine research center in 2015
  • Ewha was selected by the Ministry of Education for its Advancement of College Education (ACE) program, a 4-year financial support program with the aim to develop leading models for undergraduate programs in 2015
  • Ewha established the College of Science and Industry Convergence in 2016, with the aim to produce creative female talent aptly suited to convergence as required by promising future industries
Vision 2020 Innovation Ewha: Leading Global Excellence

New Majors of High Promise Launched to Meet Future Demand

Ewha has been creating promising new majors to help lead the knowledge-oriented society of the future. New majors launched in 2015 include the convergent discipline Brain and Cognitive Sciences; the Chemical Engineering and Materials Science major, a new leader in science and engineering education; and the Korean Studies major, aimed at fostering women leaders in regional studies in the global era.

In 2016, the College of Science and Industry Convergence is scheduled to open, with a focus on future growth industries that are women-friendly and life-enhancing.
Tissue Injury Defense Research Center (TIDRC)

Director:
Prof. Ji-Hee Lee
(jihee@ewha.ac.kr)
Established in 2010
Type:
Medical Research Center (MRC)

The center conducts research on the core mechanisms related to tissue injury defense, which are an endogenous pro-resolution network by switching on the apoptotic cell recognition and clearance, the cellular anti-oxidant/anti-inflammation system, and modulation of the lipid metabolism. The center aims at developing a novel paradigm in therapeutic technology to improve tissue injury disease.

Research Center for Cellular Homeostasis (RCCH)

Director:
Prof. Yungdae Yun
(YUNYUNG@ewha.ac.kr)
Established in 2012
Type:
Science Research Center (SRC)

The center conducts research on the mechanisms of apoptosis and the removal of apoptotic cells, autophagy under oxidative stress/nutrient deprivation, regulatory mechanisms of inflammation-triggering cells and inflammatory target cells, establishing the pathological bases for diseases caused by the abnormal control of cellular homeostasis, such as cancer and immune diseases. The center aims at becoming a global center for the research of cellular homeostasis control through the study of the mechanisms of cellular homeostasis.

Ewha-JAX International Research Center for cancer immunotherapy

Director and Korean Principal Investigator:
Prof. Jaesang Kim
(jkim1964@ewha.ac.kr)
Foreign Principal Investigator:
Prof. Charles Lee
(Charles.Lee@jax.org)
Established in 2015
Type:
Global Research and Development Center(GRDC)

The center seeks to contribute to the advancement of Korea BT industry by innovative research platforms for Anti-cancer immunotherapy integrating humanized mouse development and genomic medicine. To this end, “Ewha-JAX International Research Center for cancer immunotherapy” was established and aims to grow into an independent global center that can lead the future cancer immunotherapy.
Creative Convergence Research

1. Korean Women’s Institute

The Korean Women’s Institute (KWI) was founded on March 1, 1977, under the auspices of Ewha Womans University to serve as a professional research institute dedicated to advancing women’s issues with a vision of creating a gender-equal society.

Since December 2005, with support from the National Research Foundation of Korea, collaborative research teams at KWI have been working on a variety of cultural, socio-economic, and political projects from a feminist perspective under the theme of “Global Cultural Changes and Constructing Categories of Asian Women’s Studies.”

Since September 2010, another long-term project has been underway, titled, “Becoming Modern: Women’s Oral History, the Politics of National Division and Development in Postcolonial History.” It is supported by the National Research Foundation of Korea and will be conducted until 2015.

2. Ewha Institute for the Humanities

The Ewha Institute for the Humanities (EIH) was established on August 1, 2007 as a research body directly affiliated with Ewha Womans University headquarters to serve as an integrated research foundation. EIH is presently focused on research to create a new humanities epistemology and methodology centering on the Humanities Korea (HK) Project. EIH aims to create and diffuse new humanities discourses through international and local academic networking, building archives, publishing books and articles, and proposing educational projects. It aims to advance as an international research institute that can act as a hub for humanities research in Asia by forming an international research network with prominent humanities research institutes worldwide.

3. Institute of School Violence Prevention

The Institute of School Violence Prevention was founded on March 1, 2012 by the College of Education to serve as a specialized research body dedicated to preventing school violence through education and research. The same year, the Institute of School Violence Prevention was selected as a business support institute of the National Research Foundation of Korea’s Key Research Institute Program. The Institute seeks to establish an initiative research foundation for preventing school violence; to analyze the actual status and longitudinal trends of school violence; to prepare a master plan for prevention and measures against school violence; and to develop counseling and educational programs for bullies and victims in school violence.

4. Institute of Art and Science Convergence

The Institute of Art and Science Convergence is a prominent research center for interactive and digital media, creating the future of digital interaction. The institute promotes an integrated and multidisciplinary approach to the arts with a focus on the use of experimental and electronic media in artistic creation and performance. Its researchers come from various fields such as fine arts, computer science, industrial design, dance, music, architecture, mathematics, social science and management. The institute conducts a wide range of projects from media art to interaction design, strategic experience research, mobile services, and UI/UX, with a vision to apply unique research approaches for forecasting the impact of emerging technologies on everyday life.

5. Ewha Music Research Institute

The Ewha Music Research Institute (EMRI) is working on a project to establish a database of East Asian music sources, particularly those of 20th-century China, Japan, and Korea. EMRI’s research team is collecting vast sources in different formats, including handwritten and printed music scores, writings on music and music theory, photos, recordings, performances, and materials on composers and their works. This interdisciplinary project is the first attempt among scholars in the region to initiate integrative music scholarship with the intent to share knowledge and experiences. EMRI actively sponsors and participates in international conferences and is one of the International Working Groups of the RISM (Répertoire International des Sources Musicales) and the Korea branch of IAML (International Association of Music Libraries, Archives and Documentation Centres). Having become RISM’s Asia Center in October 2016, EMRI is leading collaboration among music documentation institutions in East Asia and beyond.

6. Institute of Mathematical Sciences

The goal of the Institute of Mathematical Sciences is to promote mathematical science through mathematical research and cultivate various related fields of study, incorporating this effort with new technology for the 21st century. Since September 2009, the institute has been carrying out a long-term project titled, “Computational Mathematics for Image Processing, Information, Security and Bio-Medical Research (1st phase) / Development of Fast and Efficient Algorithms based on Computational Mathematics (2nd phase) / Applications of Computing-based Mathematical Sciences (3rd phase),” with support from the National Research Foundation of Korea’s Key Research Institute Program of Basic Research Capability Enhancement Program, which continues until August 2018.
Ewha’s Leading Faculty

**Prof. Jin-Ho Choy**
Inorganic Material Chemistry / Distinguished Professor / Developed the world’s first Nano DNA Barcode System / Founded the Center for intelligent Nano-Bio Materials / A Medal, Chevalier dans l’Ordre des Palmes Academique, from Premier Ministre of the Republique Francaise, 2004 / 1st Class National Science Medal (ChangJo-Jang) from President of Republic of Korea, 2006 / Published over 600 papers in Science, JACS, Angewandte Chemie and other journals

**Prof. Jae Chun Choe**
Behavior & Ecology / Distinguished Professor / Founding Director of the National Institute of Ecology, Korea / One of Korea’s most widely recognized scientists; author of over 50 books / Co-established J&J Biodiversity Foundation with Jane Goodall

**Prof. Kong-Joo Lee**
Proteinic Bioanalysis / Distinguished Professor / Developed Redoxomics for Molecular Understanding of Diseases / Founded the Center for Cell Signaling & Drug Discovery Research / President of the International Network of Women Engineers and Scientists (INWES)

**Prof. Wonwook Nam**
Bioinorganic Chemistry / Distinguished Professor / A leading authority on biomimetic chemistry: first to identify reactive oxygen species in oxygenation enzymes / Published numerous papers in Science, Nature, Nature Chemistry, PNAS, JACS and other journals

**Prof. In Kyoon Lyoo**
Brain and Cognitive Sciences, Neuroimaging and Psychiatric Disorders Including PTSD / Distinguished Professor / Published over 130 papers in Molecular Psychiatry, JAMA Psychiatry, American Journal of Psychiatry, and other journals

**Prof. Gootae Oh**
Developmental Genetics, Molecular Medicine, Cardiovascular Disease / Distinguished Professor / National Research Foundation of Korea, Review Board / Director, National Creative Initiatives Center for Immune and Vascular Cell Network / Published over 146 papers in Nature Immunology, Nature Communication Immunity, Cell Metabolism, Circulation, and other journals

**Prof. Juyoung Yoon**
Fluorescent Chemosensors & Molecular Recognition / Distinguished Professor / Published over 240 papers in JACS, Angewandte Chemie and other journals / First Korean scientist to be featured in JACS Select #10: Supramolecular Chemical Cascade Approaches to Molecular Sensing

**Prof. Jae Chun Choe**
Behavior & Ecology / Distinguished Professor / Founding Director of the National Institute of Ecology, Korea / One of Korea’s most widely recognized scientists; author of over 50 books / Co-established J&J Biodiversity Foundation with Jane Goodall

**Research Institutes**

**Life/ Pharmaceutical / Medical Sciences**
Research Institute of Pharmaceutical Science
Center for Cell Signaling & Drug Discovery Research
Brain Disease Research Institute
Ewha Research Center for Systems Biology
Microbial Resources Research Center
Research Institute of EcoScience
Medical Research Institute
Tissue Injury Defense Research Center
Research Center for Cellular Homeostasis
Ewha Brain Institute
Research Center for Control and Prevention of Women’s Cancers
Ewha-UAX International Research Center for Cancer Immunotherapy

**Chemistry and Nano Science**
Center for Intelligent Nano-Bio Materials
Institute of Nano-Bio Technology
Research Institute for Basic Sciences
Materials Research Institute for Clean Energy

**Physics & Mathematical Sciences**
Quantum Metamaterials Research Center
CNRS-Ewha International Research Center
New and Renewable Energy Research Center
Institute of Mathematical Sciences
Ewha Institute of Statistics

**Engineering**
Center for Climate/Environment Change Prediction Research
Severe Storm Research Center
Environmental Research Institute
Center for Computer Graphics and Virtual Reality
Embedded Software Research Center
Center for Convergence in Emerging Electronic Technology
Center for Convergence Research of Advanced Technologies
Research Center for Convergence Technology in Food Science & Industry

**Arts & Health Sciences**
Arts Education Therapy Institute
Center for the Performing Arts
Color Design Research Institute
Ewha Music Research Institute
Dance Research Institute
Fashion Design Research Institute
Institute of Art and Science Convergence
Institute of Social Welfare Research

**Liberal Arts & Social Sciences**
Ewha Institute for the Humanities
Ewha Historical Research Center
Ewha Institute of Philosophy
Ewha Institute for Women’s Theological Studies
Research Center for Francophone Studies
Center for Germanic Cultures
Ewha Institute of English and American Studies
Korean Language and Culture Center
Center for Chinese Cultural Studies
Center for Multiculture Research
Ewha Education Research Institute
Ewha Institute of Childhood Education and Care
The Special Education Research Institute
Ewha Legal Science Institute
Ewha Institute for Biomedical Law & Ethics
Institute for Gender and Law
Human Ecology Research Institute
Institute for Development and Human Security
Institute for International Trade and Cooperation
Institute for Social Welfare Research
Institute of Unification Studies
Institute of World and Global History
Korea Culture Research Institute
Korean Women’s Institute
Asian Center for Women’s Studies
Management Research Center
Ewha Institute of Social Sciences
Research Institute for Translation Studies
Research Institute of Curriculum Instruction
Communication & Media Research Center
Digital Storytelling R&D Center

**Overseas Partner**
CNRS-IPCMS, France
Stanford University, U.S.A.
UC, Irvine, U.S.A.
Jackson Laboratory, U.S.A
Cornell University, U.S.A
Japan Women’s University, Japan
Ochanomizu University, Japan
University-Industry Collaboration

Ewha-Solvay Global R&I Center and Joint Fellowship

Ewha signed an agreement on May 30, 2011 to jointly establish a global R&I center with Solvay, a Belgian multinational chemicals group. Ewha is Solvay’s first university partner in establishing its global R&I center. Solvay will invest EUR 13 million on building the Ewha-Solvay Global R&I Center (named Ewha-Solvay Research & Innovation Center) on the Ewha campus and setting up the headquarters of its global business unit of special chemicals. Another EUR 3.8 million will be invested to offer a joint fellowship with Ewha Womans University. The joint research between Ewha and Solvay will aim at development high value-added specialty polymers and special chemicals for electronics, lithium-ion batteries, and photovoltaic cells. Ewha-Solvay Research & Innovation Center held opening ceremony on June 3, 2014.

KBSI to Open Its Western Seoul Center at Ewha

Ewha and the KBSI concluded an agreement on April 5, 2012 to establish KBSI’s Western Seoul Center at Ewha for basic research and technical development on the convergence and integration of nano, bio, and pharmaceutical technology. KBSI’s Western Seoul Center is well equipped with the basic science research instruments: up to 800 MHz liquid state NMR spectroscopy; 600 MHz solid state NMR spectroscopy; single crystal XRD; electron paramagnetic resonance system, etc. KBSI’s Western Seoul Center provides an environment for carrying out investigative research toward challenging biomedical and nanomaterial problems, and offers training, support, and collaborative research opportunities in cutting-edge research equipments. The opening ceremony was held on July 1, 2014. And Ewha and KBSI launched the Degree & Research Center at the end of 2014 with the grant from the National Research Council of Science & Technology in order to develop and apply magnetic resonance techniques to understand how advanced materials and biological components function.

University-Industry Cooperation Building, the Center of Research Innovations

The University-Industry Cooperation Building at Ewha is the hub of global research networks and a venue for fostering scientific talent to lead the future of various disciplines. The building is comprised of five levels above ground and one underground for a total surface area of 25,833 m². As a part of Ewha’s core research infrastructure, it hosts the Ewha-Solvay R&I Center, which is the first research and innovation facility in a Korean university; the Western Seoul Center of the Korea Basic Science Institute; domestic IT and BT businesses (Hyundai IBT, DNA Link); Ewha’s Business Incubator; Center for Entrepreneurship; and the Ewha Brain Institute. This aims to consolidate Ewha’s collaborative system, which brings together industrial actors, academia, research institutes, and government agencies.

1. The Ewha University-Industry Cooperation Building
2. Ewha-Solvay Research & Innovation center
3. Ewha Brain Institute
4. Ewha Business Incubator
5. Forum by Center for Entrepreneurship

KBSI-800MHz NMR-MS System

SPE-800MHz NMR-MS System
Faculty Recruiting Invitation to EWHA Professorship

EWHA invites distinguished scholars from across the world to join in leading the future of science and technology, liberal arts, social science, engineering, arts, business administration, law, pharmacy, and other various academic areas. We cordially welcome applications and employ those with outstanding academic and research accomplishments. It is planned to employ professors who will be working for EWHA for research and development of the core fields. We normally post the announcement for faculty openings on www.ewha.ac.kr in early March every year. For further information, please contact at faculty@ewha.ac.kr.

Graduate Admissions

Admissions usually take place from April to May, or from September to October each year. To be admitted as a graduate student, the applicant must hold a Bachelor’s degree or the equivalent from an accredited college or university with a record showing her ability to maintain satisfactory progress in graduate work. Any graduate of an accredited college or university who seeks admission to a non-degree program may be admitted to courses at the graduate level, but without guarantee that any credit earned under such post-baccalaureate status may later be applied toward a graduate degree.

Office of Admissions
Email: admission@ewha.ac.kr  Homepage: http://admission.ewha.ac.kr
History and Future of ‘Science Ewha’ University-Industry Cooperation Building