



*We study
the future of
occupational
safety and
health*



안전을
먼저 생각하자





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Global Think Tank





A Think Tank for Safety &
Health Research

OSHRI

Driven by the spirit of challenge, we will continue to study safety and health issues, laws, and institutions to leap forward as a global policy institute for occupational safety and health

In an ever-changing world, we will address safety and health issues and policy challenges in the workplace and advocate policy development ahead of future changes in the industrial environment with the view of actual curtailment of occupational accidents, thereby emerging as a global policy leader in occupational safety and health



“ We will be a reliable partner
in occupational safety and health
who safeguards the life and
health of workers. ”

The Occupational Safety and Health Research Institute (OSHRI) is an agency which has been dedicating to improve the quality of life for workers and realize social values as a public institution by conducting researches based on scientific information and sharing their findings in order to prevent occupational disease and accidents at industrial sites.

Since founded, the OSHRI has accumulated substantial accomplishments improving the industrial safety level in Korea through countless researches and projects; however, occupational accident indicators, including the death rate in industrial accidents per ten thousand employees, in Korea are still fallen far behind as of today especially when compared to the State economic standards.

The very rapid changes in the industry, led by the Fourth Industrial Revolution, demand many changes in the safety and health environment, such as changes in employment and working conditions, an increase in vulnerable groups including growing numbers of migrant workers, and increased risk factors from the use of new techniques and new materials. In addition, the occupational safety level of one country is not determined solely by the scientific knowledge level. The social environment and consensus towards safety are the biggest variables. Although social interest in safety and health continues to increase due to the influence of various media, practical personnel and material investment for disaster prevention is in very short supply against our economy level. Therefore, there is a need for new safety knowledge in response to the occurrence of new risks and policies that will lead the safe investment of companies.

Accordingly, the OSHRI is enhancing the system to select research projects, including research management system and ‘monitoring of safety and health issues,’ for the purpose of researches leading efficient policies and technologies designed to identify and address new risks, including “Study on Conversion of Paradigm from Safety-I to Safety-II,” “Study on Development of Safety and Health Policies,” “Epidemiological Study on Occupational Disease Prevention,” and “Advanced Research on Prevention of Health Hazard” from future chemicals in order to preemptively respond to new changes in working environment and industrial structures.

Likewise, we will pour everything we have into the researches which will lead the establishment of efficient disaster prevention methods on the site, system improvement and effective safety and health policies in order to enhance the level of occupational safety and health in the Republic of Korea.

Thank you.

Director General of Occupational Safety and Health Research Institute **Jae-cheol Ko**







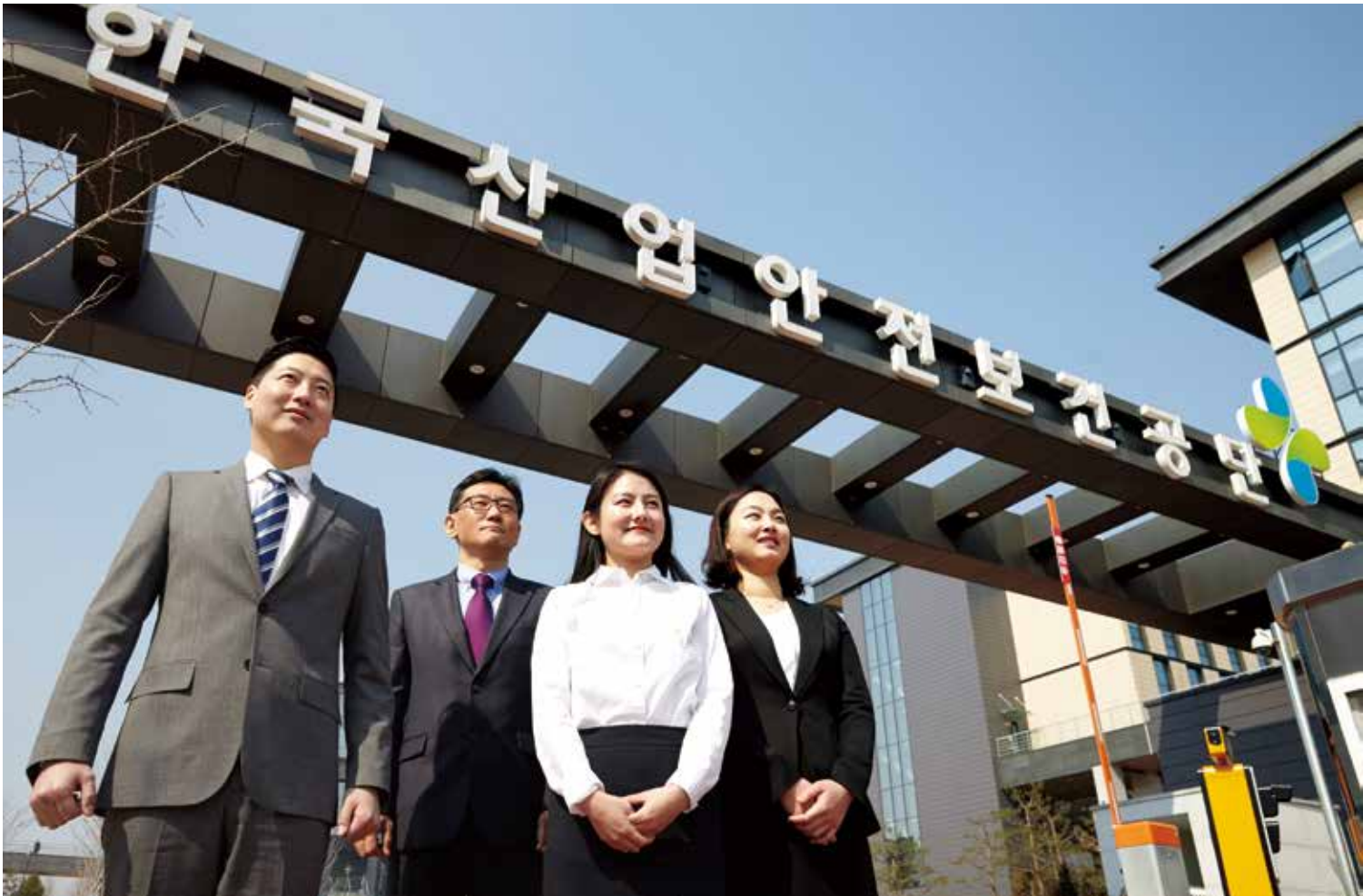
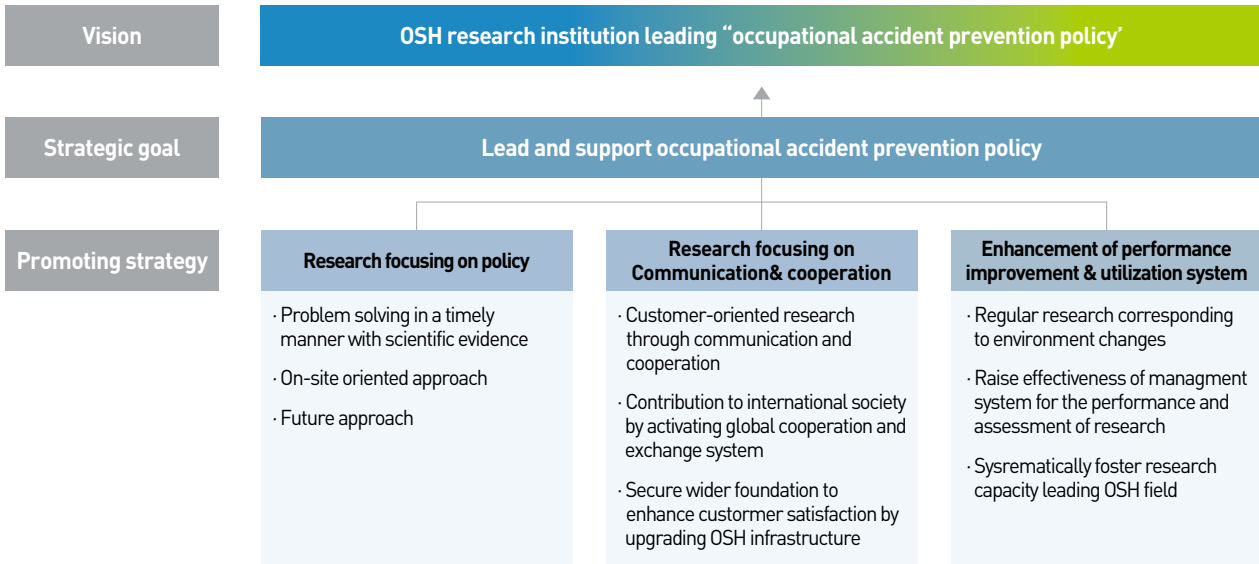
We study the future of occupational safety and health.

With sophisticated research capability equipped with the cutting-edge technology of occupational safety and health, OSHRI conducts researches on OSH policy, accident prevention, safety and health at workplace and chemicals. Along with those, professional services for accident investigation, epidemiological survey on work-related disease, quality control over medical examination service providers and asbestos investigation organizations, assessment of potential risk of hazardous chemicals, Korean Working Conditions Survey(KWCS), Occupational Safety and Health Company Survey(OSHCS) and statistical survey on occupational accidents.

OSHRI, A Happy Partner for Workers and the Best Research Institute for the Prevention of Occupational Accidents

OSHRI

| A Strategic Map of Vision and Goals |



Safety for All in Korea! OSHRI continues to step forward briskly for the creation of new values of safety and health.



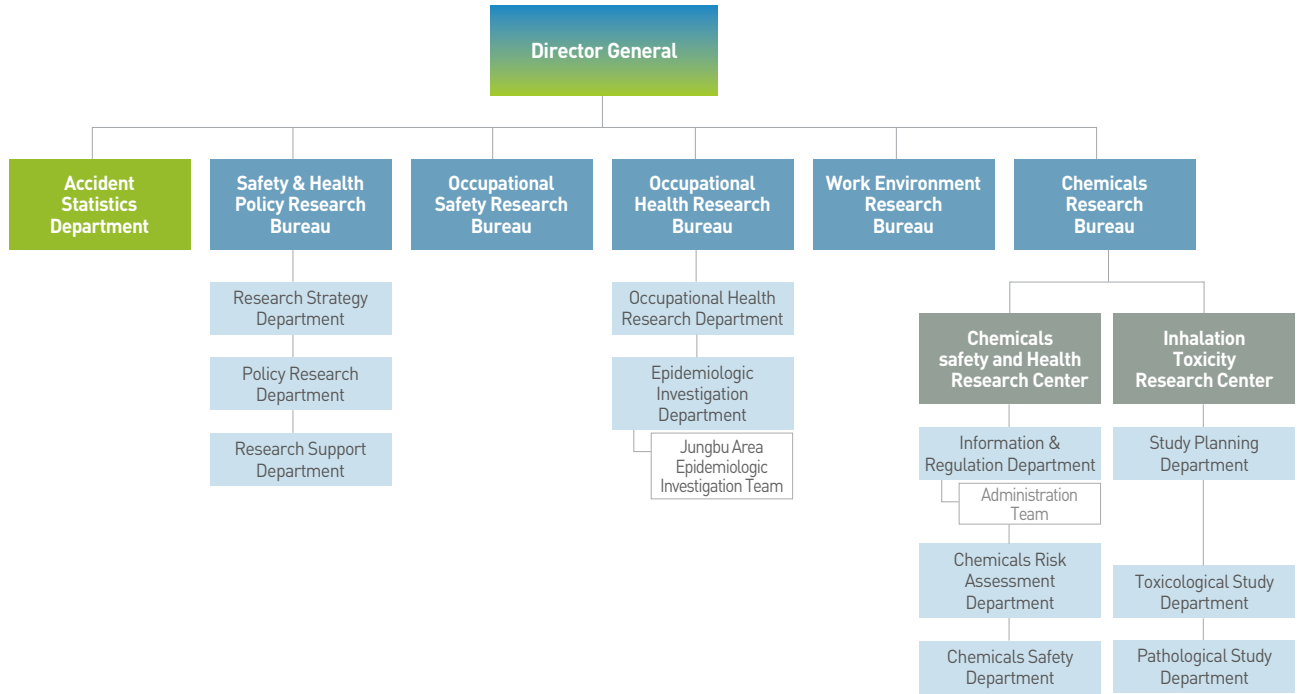
History

- Apr. 1977** ○ The National Labor Scientific Institute was established under the umbrella of the Labor Administration
- Feb. 1989** ○ The National Labor Scientific Institute was dismantled
- Jul. 1989** ○ The Occupational Safety & Health Research Institute(OSHRI) was founded under the umbrella of the Korea Occupational Safety and Health Agency(KOSHA)
- Jul. 1989** ○ Kim, Won-gap became as the 1st Director General of the OSHRI
- Jan. 1992** ○ OSHRI was divided into the Occupational Safety Research Institute(OSRI) and the Occupational Health Research Institute(OHRI)
- Jan. 1992** ○ Suh, Sang-hak became the 2nd Director General of OSRI
- Jan. 1992** ○ Jung, Gyu-cheol became the 2nd Director General of OHRI
- Apr. 1994** ○ Mun, Young-han became the 3rd Director General of OHRI
- Jun. 1995** ○ Lee, Han-hoon became the 3rd Director General of OSRI
- Sep. 1997** ○ The National Center for Occupational Toxicology was created within the OHRI(inside the Daedeok Innopolis)
- Dec. 1998** ○ The OSRI and the OHRI were integrated into OSHRI
- Jan. 1999** ○ Jung, Ho-geun was appointed as the 4th Director General of OSHRI
- Mar. 1999** ○ The Occupational Epidemiology Team was created for epidemiological survey
- Dec. 2001** ○ The Safety Management Policy Research Department was created to reinforce research and investigation into safety and health at the sociological, legal, and policy level
- Feb. 2003** ○ Kim, Gwang-jong became the 5th Director General of OSHRI
- Apr. 2004** ○ The Occupational Disease Research Team was created for the prevention of musculoskeletal disorders and cerebrovascular and cardiovascular diseases
- Feb. 2006** ○ Park, Doo-yong was designated as the 6th Director General of OSHRI
- May 2006** ○ For independence and autonomy of research personnel, OSHRI came under the immediate control of the President of the KOSHA instead of the Vice President for Technology thereof
- Jan. 2009** ○ Kang, Sung-gyu became the 7th Director General of OSHRI
- Jul. 2009** ○ The OSHRI marked the 20th anniversary of its founding
- Jan. 2012** ○ Park, Jung-sun became the 8th Director General of OSHRI
- Dec. 2013** ○ Occupational Health Research Center was divided into the Occupational Health Research Bureau and the Work Environment Research Bureau
- Feb. 2014** ○ The OSHRI moved to its new headquarters in Ulsan with creation of the Research & Strategy Team
- Sep. 2014** ○ Kwon, Hyuck-myun became as the 9th Director General of OSHRI
- Dec. 2015** ○ Established the Chronic Inhalation Toxicity Research Center
- Nov. 2016** ○ KIM Jang-ho became as the 10th Director General of OSHRI
- Jan. 2019** ○ Mr. Jae-cheol Ko takes the office of the 11th Director General of OSHRI



1 department
5 bureaus

OSHRI has an organizational structure of 5 bureaus and 1 department for efficient response to social issues such as environmental change in safety and health and growing demands for new types of safety and health.



Accident Statistics Department

- Statistics analysis and data management service
- Produce occupational accident and disease data and information according to the sizes, types and causes
- Assist establishment of accident prevention strategy and evaluating safety program performance

Safety & Health Policy Research Bureau

- Assist the government's policy formulation and management by providing scientific evidence accident prevention
- Suggest current and future research direction with proactive searching for issues on OSH
- Monitor and analysis changes in society, economic structure and working environment
- Provide publications about occupational safety and health issues in home and abroad to provide scholar-/policy-related information

Occupational Safety Research Bureau

- Research on the systematic-model-based next generation occupational safety management system
- Development of occupational safety roadmap to address the changes in industrial environment of the future
- Development and commercialization of occupational safety-related device using ICT

Occupational Health Research Bureau

- Research on prevention of reoccurrence of existing occupational disease, credible occupational disease, new types of occupational disease and work-related disease
- Operation and execution of epidemiologic survey on occupational disease, precautionary epidemiologic survey and research, and training for residents of occupational and environmental medicine
- Qualify assurance for special health examination institutes (pneumoconiosis, hearing acuity, analysis) and medical examination institutes for pneumoconiosis, and management of data on workers' medical examination

Work Environment Research Bureau

- Works on the assessment and overhaul of the work environment to protect workers from physical, chemical, and biological hazards in the workplace
- Undertakes quality control over work environment measurement organizations, asbestos investigation organizations and operates the work environment analysis laboratory
- Establish, revise and manage International Organizations for Standardization(ISO) and Korean Standards(KS) in workplace air condition field

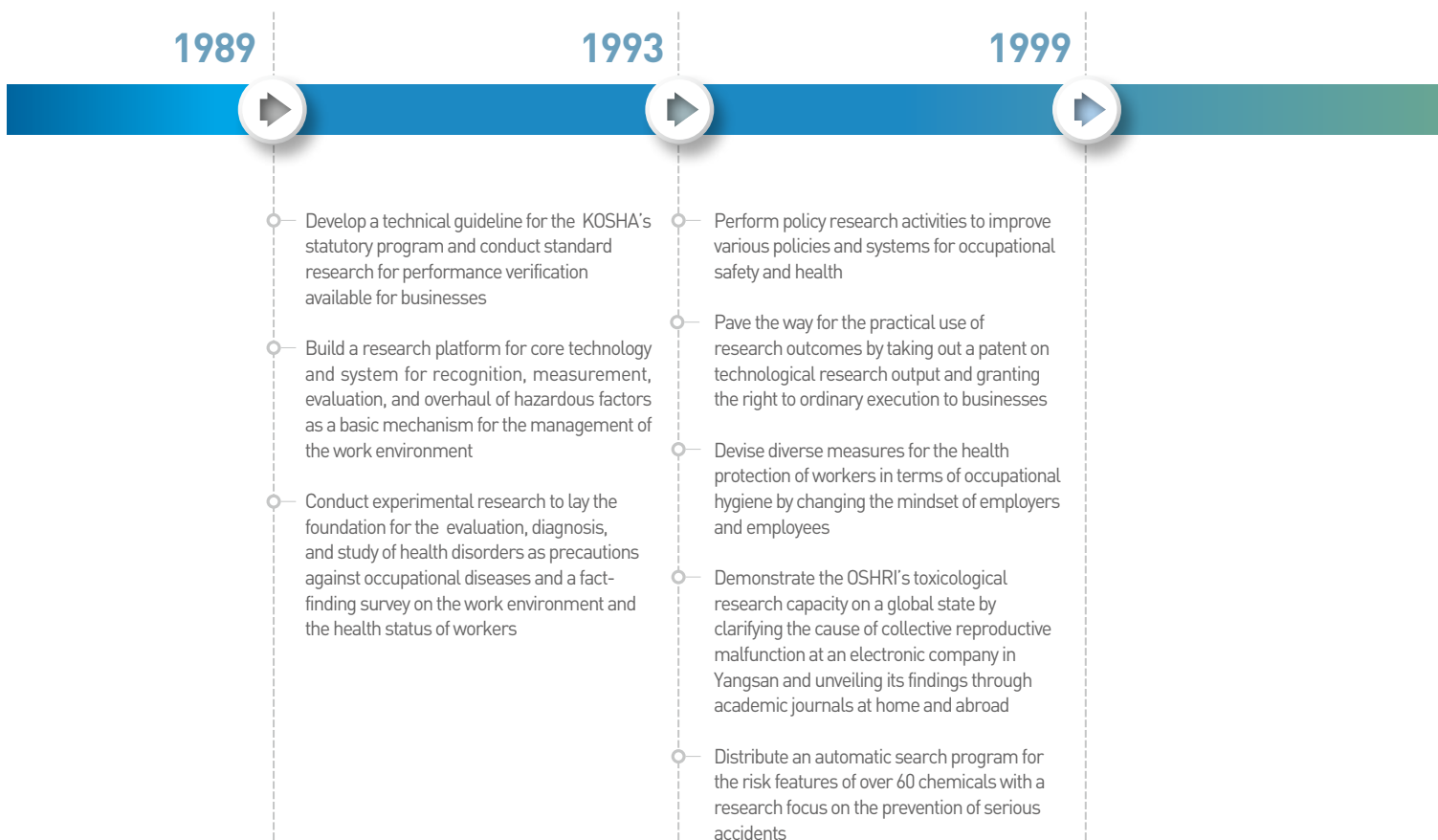
Chemicals Research Bureau

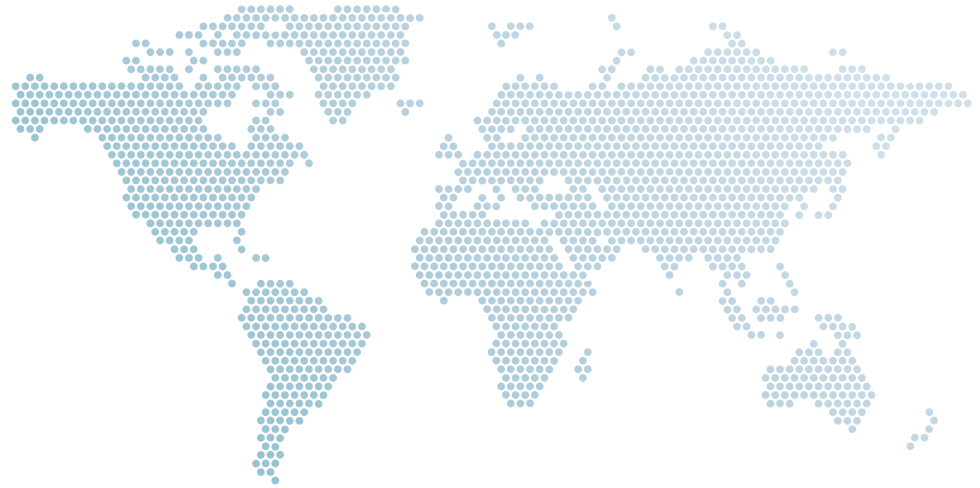
- Harmfulness/risk assessment for the national chemicals management and management of chemicals information (GHS MSDS)
- Toxicity study to prevent health hazard from chemicals, and operation of GLP (Good Laboratory Practice) toxicology test agencies
- Study on construction of foundation to prevent chemical accident and operation of internationally recognized testing laboratory accredited by the Korea Laboratory Accreditation Scheme (KOLAS)
- Operation of inhalation toxicology testing facility, assessment on inhalation toxicity of chemicals, and support for selection of test materials

Performance Highlights

Occupational Safety and Health Research Institute (OSHRI) is established in 1989 in purpose of accident prevention.

It, has continuously been producing research results which are responding changes in new environment equipped with its expertise in OSH field for 30 years since its establishment.





2005



- Spearhead a pragmatic study through the creation and execution of a mid-term (more than 3 years) research plan
- Work on systemic development of occupational safety and health trend survey to build a basis for the creation of occupational safety and health policies and programs, starting from the first survey in 2002
- Introduce the NIOSH's Health Hazard Evaluation Program for the first time in Korea
- Develop new methods for health management and diagnosis of occupational diseases and identify a new mechanism in response to changing disease patterns due to the prevalence of knowledge-based industries, thereby building a research platform for the development of indicator materials
- Reinforce inhalation toxicity research capacity through ongoing study on inhalation toxicity of particulate matters (volatile organic solvents, particles, asbestos, and welding fume) and conduct the first domestic research on the evaluation of hazards of nanomaterials

2010



- Formulate the mid and long-term research strategies for occupational safety and health and lay the foundation to address the policy research challenge of reducing top 3 disasters at work
- Expand policy support to meet customer demands like actual needs arising in the workplace
- Conduct comprehensive exposure assessment of the work environment at the first tire factory as part of pragmatic study to prevent occupational diseases and create a comfortable work environment, thereby presenting a model for the evaluation of the work environment in the rubber industry
- Devise measures for the health protection of researchers, professionals & specialists, service workers, and foreign workers when more people come under the occupational health coverage according to the Occupational Safety and Health Act and old, female and foreign workers increase
- Strengthen an integrated study on chemical hazards and risks, including chemical information, policies, toxicity, and hazards

2019



- Performance of projects on current issues requested by the Ministry of Employment and Labor and KOSHA and support for reflection of research findings in order for occupational accident prevention policies and systems to promptly respond to changes in industrial sites
- Procurement of socio-scientific grounds for safety and health policies through reinforcement of policy studies and enhancement of investigative functions, and construction of DB capable of identifying current situation of nationwide safety and health
- Execution of troubleshooting-oriented researches on current issues of safety and health at industrial sites hardly addressed by private research institutions
- Provision of chemicals information suitable to consumers' understanding pursuant to implementation of GHS system by building a website dedicated to Open API (Application Programming Interface) to enhance accessibility and applicability of MSDS DB in order to fulfill the "Materialization of Public-oriented Service Government 3.0"
- Execution of chronic and oncogenic inhalation exposure experiments by building and operating chronic inhalation toxicity test facility and identification of causative substance for occupational cancer



Key Activities

Research Activities

Professional Services



Key Activities



Research Activities

1. Safety & Health Policy Research
2. Safety Engineering Research
3. Occupational Health Research
4. Work Environment Research
5. Chemical Hazard & Risk Research



OSHRI contributes to preventing occupational accidents through policy research on preventive measures against occupational accidents, pragmatic study on the settlement of occupational safety and health issues, and basic research on the creation of future-oriented knowledge

1

Safety & Health Policy Research

Study of Safety & Health Policies and Institutions

In response to environmental changes in industry, economy, society, and workplace, the OSHRI undertakes research to promote policy formulation and institutional overhaul for occupational safety and health, address social issues, and identify potential hazards and risks surrounding future industries

- Research on improvement of occupational safety and health policies and systems
- Educational/social/psychological/economic research on legal system to prevent occupational accidents
- Establishment of mid-to-long-term goals for occupational safety and health researches and planning of such researches
- Monitoring of changes in working environment and execution of surveys to identify newly emerging harmful/risk factors (working environment survey, survey on OSH trends)

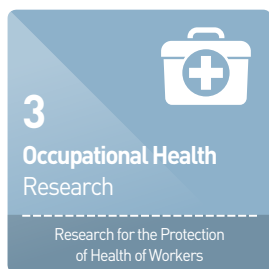
2

Safety Engineering Research

Research for the Fundamental Prevention of occupational accidents

From the perspective of engineering, OSHRI analyzes the causes of occupational accidents by industry and accidents type to present preventive measures and conducts research to ensure fundamental safety for industrial machinery and equipment

- Pragmatic research on the prevention of accidents in the workplace
- Study in the field of mechanical, electrical, civil, and human engineering
- Analytical identification of causes of serious accidents and creation and revision of technological standards



OSHRI performs its epidemiological study, research on institutional overhaul, and investigative and analytical research for precise diagnosis, scientific clarification, and prevention of occupational diseases. It focuses on social changes and on-the-spot demands

- Epidemiologic study on occupational disease
- Study on protection of workers' mental health
- Study on improvement of workers' medical examination system
- Impact assessment on workers' health exposed to harmful factors and study on management measures



OSHRI studies physical, chemical, and biological hazards and legal and institutional overhaul to assess exposure to hazardous agents in the workplace and find measures for environmental improvement in terms of engineering

- Study of exposure assessment and management methods for physical, chemical, and biological agents
- Research on the settlement of social issues in terms of occupational hygiene
- Research on methodological improvement and efficiency increase in work environment measurement
- Study on the development of standards for exposure to hazardous agents



OSHRI performs research on health disorders due to chemicals manufactured and handled in the workplace, creation and operation of inhalation toxicity testing facilities in line with the GLP standards, and testing and evaluation of chemical hazards and risks like the characteristics of fire and explosion accidents

- Research on the improvement of an information delivery system for chemicals
- Study on the toxic mechanism, inhalation toxicity, and genetic toxicity of chemicals
- Research on the prevention, identification of causes, and risk assessment of chemical accidents
- Study on the inhalation toxicity with animal test



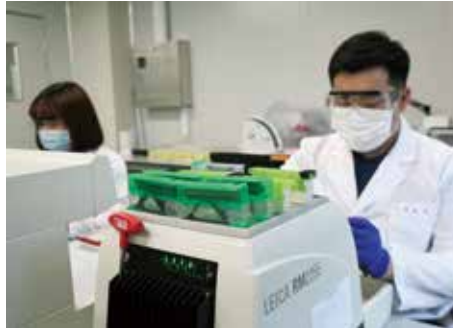
※ For retrieval of research reports, please click on 'Research project' in 'Research' at the main screen of the homepage (<http://eoshri.kosha.or.kr/en>)

Key Activities



Professional Services

1. Epidemiological Investigation into Occupational Diseases
2. Quality Control over Safety & Health Service Providers
3. Evaluation on the hazards and risks of chemicals
4. Evaluation on the inhalation toxicity
5. Statistical Survey and Analysis of Industrial Disasters
6. Journal of Safety and Health at Work

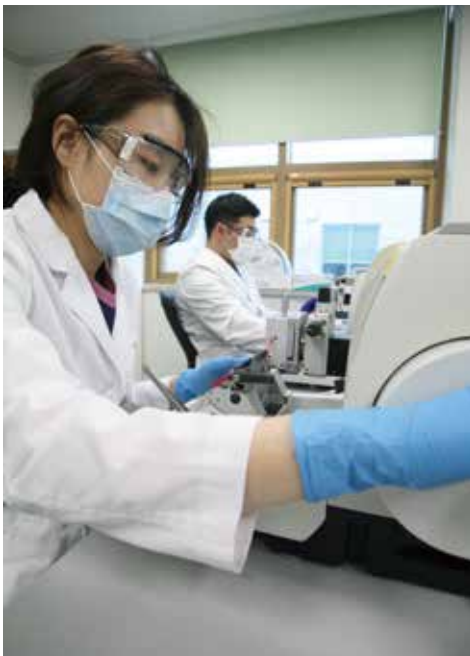


Professional Services



For the safety of workers and the prevention of occupational health disorders, OSHRI operates professional services, including its epidemiological investigation into occupational diseases, quality control over analysis and measurement organizations, evaluation of chemical hazards and risk, database of chemical safety and health, statistic analysis of occupational accidents, and publish Journal of safety and health at work





1
Epidemiological Investigation into Occupational Diseases



OSHRI investigates the work environment and health examination of workers for the identification of occupational diseases, thereby devising preventive measures based on the relevance between occupational diseases and hazardous agents. It also keeps track of occupational diseases through collection of diagnostic data from hospitals and clinics and nurtures residents into specialists in the field of occupational and environmental medicine

- Epidemiological Investigation into occupational Diseases
- Monitoring system for occupational diseases
- Training of medical residents in the field of occupational and environmental medicine

2
Quality Control over Safety & Health Service Providers



On a yearly basis, OSHRI performs quality control over work environment measurement organizations, asbestos investigation organizations, special health examination agencies, and pneumoconiosis examination agencies to ensure the accuracy and precision of analysis and measurement outcomes

- Quality control over work environment measurement organizations
- Quality control over asbestos investigation organizations
- Quality control over special health examination agencies and pneumoconiosis examination agencies

3
Research on the toxicity and risks of chemicals



OSHRI has launched the Open API (Application Programming Interface) and a website to prevent health disorders due to chemicals in the workplace, thereby offering wide-ranging, integrated chemical information, including over 18,000 types of Material Safety Data Sheets (MSDS), classified data on chemical hazards and risks, and chemical information cards

- Build Data base of Material Safety Data Sheets (MSDS) and provide information through website
- Assessment of new chemical hazards and risks, investigation of MSDS
- Evaluation of chemical hazards and risks using experimental animals
- Evaluate chemical hazards and risks for prevention and investigation on chemical accident



4

Research and
evaluate on the
inhalation toxicity



OSHRI has performs toxicological research and operates the GLP(Good Laboratory Practice) toxicity testing organization studies on the inhalation toxicity and pathology examination using experimental animals

- Operates the GLP(Good Laboratory Practice)
- Acute, subchronic, and chronic toxicity studies for evaluating chemical hazards and risks
- Study on the pathology toxicity using experimental animals

5

Statistical Survey and
Analysis of
Occupational Accidents



OSHRI undertakes a survey on the work environment and analysis of the health examination results of workers and work environment measurement results. It also collects statistics on the causes of industrial disasters, thereby providing a basis for the creation of policies and programs against occupational accidents

- Investigation into the causes of occupational accidents
- Statistics analysis of health examination results of workers

6

Journal of Safety and
Health at Work



OSHRI shares up-to-date safety & health research trends, scholarly information, policies and institutions with experts at home and abroad and regularly releases an international journal for the development of safety and health research (SH@W). It also issues a report on safety and health (ISSUE REPORT), and a report on the practical utilization of safety health research findings (Research To Practice, R2P)

- Publishes an international scholarly journal (SH@W)
- Releasing a report on the practical utilization of safety and health research findings (R2P)
- Releasing a report on safety and health (ISSUE REPORT)

Publications



OSHRI provides research reports and various publications to guard health and safety of workers, and contribute in development of OSH policy and business



Research report

Publishing annual Research Report for Industrial Accident Prevention Policy



Safety and Health International Academic Journal Safety & Health at Work (SH@W)

International academic journal publishing outstanding research findings on policies and systems related to safety and health in Korea and overseas and for prevention of occupational accidents, which is published quarterly; SCI enlisted in January, 2019



OSH ISSUE REPORT

Periodical publication of emerging issues related to occupational safety and health



Research to Practice (R2P)

Publishing practical utilization of safety health research findings or example applied to industrial sites such as machinery and work environment half-yearly



Newsletter on OSHRI

Publishing every other month to promote about research results and academic activities

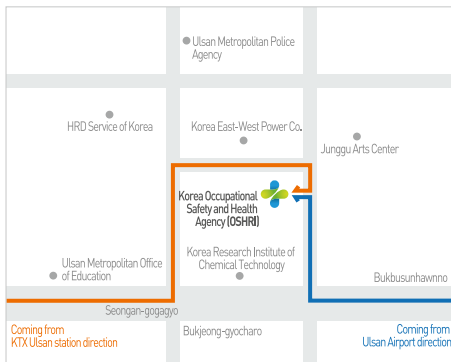
The professional journals on safety and health can be downloaded from the homepage (<http://eoshri.kosha.or.kr/en>)



Global Leader OSHRI

OSHRI as a world-class research institute in OSH field will produce creative research results, strengthen research quality and secure better infrastructure so that it can step up to be a global leading institute in OSH

Occupational Safety and Health Research Institute



Zip Code: 44429

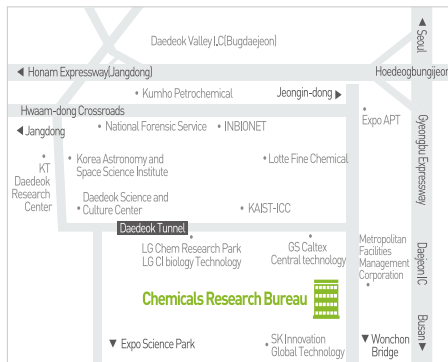
400, Jongga-ro, Jung-gu, Ulsan

Tel. +82-52-703-0837 Fax. +82-52-703-0333

Telephone Numbers

■ Accident Statistics Department	+82-52-703-0355
.....	
■ Safety & Health Policy Research Bureau	
Research Strategy Department	+82-52-703-0816
Policy Research Department	+82-52-703-0828
Research Support Department	+82-52-703-0832
.....	
■ Occupational Safety Research Bureau	+82-52-703-0849
.....	
■ Occupational Health Research Bureau	
Occupational Health Research Department	+82-52-703-0866
Epidemiologic Investigation Department	+82-52-703-0875
- Jungbu Area Epidemiologic Investigation Team	
.....	
■ Work Environment Research Bureau	+82-52-703-0891

Chemicals Research Bureau(Daejeon)



Zip Code: 34122

30, 339 Bun-gil, EXPO-ro, Yuseung-gu, Daejeon

Tel. +82-42-869-0343 Fax. +82-42-863-8361

Telephone Numbers

■ Chemicals safety and Health Research Center	
.....	
Information & Regulation Department	+82-42-869-0317
-Administration Team	+82-42-869-0343
.....	
Chemicals Risk Assessment Department	+82-42-869-0325
.....	
Chemicals Safety Department	+82-42-869-0335
.....	
■ Inhalation Toxicity Research Center	
.....	
Study Planning Department	+82-42-869-8548
Toxicological Study Department	+82-42-869-8516
Pathological Study Department	+82-42-869-8539