

Research

(1) Project Research

Key Research Area Projects funded by Ministry of Health, Labour and Welfare

- 1) Survey on health effects of workers occupationally exposed to dioxins
Yasutaka Ogawa, Ippei Mori, Akinori Nakata, Satoru Ueno, Rui-Sheng Wang, Mamoru Hirata, Fumihiko Kitamura, Rie Yoshida, Xiaozhong Yu and Kenichi Ohba
- 2) Ergonomic improvements of working condition in the information technology era
Susumu Saito, Hiroshi Jonai, Midori Sotoyama, Kazuyuki Iwakiri and Ippei Mori
- 3) Study on work environment management for irregular work using organic solvents
Norihiko Kohyama, Sei-ichiro Kanno, Mariko Ono-Ogasawara, Fumio Serita and Mitsuya Furuse
- 4) Study on whole-body vibration and countermeasures in work environment
Setsuo Maeda, Makoto Ariizumi¹, Hisataka Sakakibara², Tatsuya Ishitake³ and Gen Tamaoki⁴
¹ Ryuky University School of Medicine; ² Nagoya University School of Medical Science; ³ Kurume University School of Medicine and ⁴ Tokyo Metropolitan University
- 5) Epidemiologic studies on work-relatedness of diseases
Mamoru Hirata, Ippei Mori, Yasutaka Ogawa, Kenji Iwasaki, Tsutomu Okuno, Naomi Hisanaga, Takeshi Sasaki and Hitoshi Kubota
- 6) Preventive study on occupational stress of older workers
Hideki Fukuda, Shin-ichi Sawada and Tatsuo Oka

Research Projects Funded by Government

- 1) Analysis and biological effects of airborne rare-earth particles from functional materials
Mitsutoshi Takaya, Norihiko Kohyama, Fumio Serita, Yasushi Shinohara, Mariko Ono-Ogasawara, Noriko Otaki, Tadao Toya and Ayako Takata¹
¹ Department of Preventive Medicine and Public Health School of Medicine, Keio University
- 2) A comprehensive study on the effects of endocrine disruptor suspects on the hormonal and neurobehavioral development of the second generation in rats
Takeshi Honma, Muneyuki Miyagawa, Rui-Sheng Wang, Megumi Suda, Kenichi Kobayashi and Soichiro Sekiguchi
- 3) Study on the improvement of local air pollution mainly caused by diesel exhaust gas
Mariko Ono-Ogasawara, Toshihiko Myojo and Hironobu Abiko
- 4) Study on risk assessment of workplaces related with brominated dioxins
Haruhiko Sakurai¹, Yasutaka Ogawa, Ippei Mori, Mitsutoshi Takaya and Masayoshi Hagiwara
¹ Occupational Health Research and Development Center, JISHA
- 5) Study on development and application of two dimension visualized system by continuous measurement for hazardous substances in work environment
Norihiko Kohyama, Fumio Serita and Sei-ichiro Kanno
- 6) Study on diagnosis and prevention of musculoskeletal disorders in the upper extremities
Mamoru Hirata, Kazushi Taoda¹ and Ryoichi Inaba²
¹ Shiga Medical University; and ² Gifu University School of Medicine
- 7) Historical cohort study on carcinogenic risks and reproductive disorders due to dioxine exposure among workers in municipal solid waste incinerators
Ippei Mori, Yasutaka Ogawa, Shigeki Kohda¹ and Shinji Kumagai²

¹ Department of Community Nursing, Kochi University; ² and Life and Hygiene Division, Osaka Prefectural Institute of Public Health

- 8) Study on intraocular pressures in workplaces
Ryo Suzuki, Shunichi Araki, Katsumi Ohtani and Makoto Araya¹
Department of Ophthalmology, University of Tokyo, School of Medicine

Research Projects Entrusted by Private Enterprises and Public Foundations

- 1) Examination of biological effects by fibrous silica gel and forsterite made from chrysotile produced in Canada
Norihiko Kohyama, Tadao Toya and Yasushi Shinohara
- 2) Examination of biological effects by fibrous silica gel and forsterite made from serpentine and chrysotile
Norihiko Kohyama, Tadao Toya and Yasushi Shinohara
- 3) Development of a quick analytical method for organic chemicals in size-selected particles of tobacco smoke
Toshihiko Myojo and Mariko Ono-Ogasawara
- 4) Study on stress assessment in workplaces using occupational stress questionnaire
Takashi Haratani, Akinori Nakata and Masaya Takahashi

(2) Fundamental Research

Intramural Research Projects

- 1) Development of high sensitive analytical method for dioxins in human blood
Norihiko Kohyama, Masayoshi Hagiwara, Mitsutoshi Takaya, Sei-ichiro Kanno, Yasushi Shinohara, Fumio Serita, Yasutaka Ogawa and Rie Yoshida
- 2) Survey on occupational health improvements experienced among factories arranged to join the mode project aimed to improve occupational health management by Ministry of Health, Welfare, and Labor
Yasutaka Ogawa, Ipppei Mori, Hiroyuki Saito, Mamoru Hirata, Rie Yoshida and Kenichi Ohba
- 3) Estimation of the effects of occupational hazardous factors on gene expression
Shinji Koizumi, Hirotomo Yamada, Kaoru Suzuki, Nobuhiko Miura, Terukazu Kobayashi and Rie Uenishi
- 4) Analysis of occurrences of occupational diseases based on report of workers' deaths and injuries
Hideki Fukuda, Shin-ichi Sawada, Ipppei Mori, Tatsuo Oka, Mamoru Hirata, Lumie Kurabayashi and Kazuyuki Iwakiri
- 5) Indicators and assessment of health effect in low level of chemical
Takeshi Honma, Muneyuki Miyagawa, Rui-Sheng Wang, Megumi Suda, Kenichi Kobayashi, Mamoru Hirata, Goro Asano¹, Tatsuya Haga² and Kao Xing³
¹ Japan Medical University; ² Gakushuin University; ³ CDC, Beijing

Department of Work Stress Control

- 1) How to control drinking for health promotion
Yasutaka Ogawa, Rie Yoshida and Kenichi Ohba
- 2) Studies on job stress and healthy work organizations
Takashi Haratani and Satoe Fukui
- 3) Epidemiological studies on occupational cancer
Ipppei Mori, Hitoshi Kubota, Mamoru Hirata and Kuniomi Nakamura¹

¹ *Japan Nuclear Cycle Development Institute*

- 4) Improvement of sleeping problems related to work schedules and promotion of sleep related health through nap strategies
Masaya Takahashi, Akinori Nakata Takashi Haratani, Naoko Tachibana¹, Takeshi Tanigawa² and C. A. Czeisler³
¹*Osaka Prefectural Health Science Center; ²Tsukuba University; and ³Harvard University*
- 5) Epidemiological and immunological research of stress, fatigue and sleep
Akinori Nakata, Takashi Haratani, Masaya Takahashi, Yosei Fujioka¹ and Naomi Swanson²
¹*University of Tokyo; and ² National Institute of Occupational Safety and Health, USA*
- 6) The characteristics of muscle contraction under various conditions
Satoru Ueno, Rui-Sheng Wang, Makoto Okuno¹, Joseph Hoh², Kazuhito Yokoyama¹ and Yasuki Kobayashi¹
¹*University of Tokyo; and ² University of Sydney.*
- 7) The effect of nigh-sleep on valiation of human circadian rhythm measuring by salivary levels of cortisol
Keiichi Miki
- 8) Mental health management for Japanese expatriates
Lumie Kurabayashi, Mitsuru Suzuki¹, Takamasa Saito², Fumitaka Noda³, Naoko Miyaji⁴, Hidehiko Kuramoto⁵ and Kazuyoshi Yamamoto⁶
¹*Iwate Medical University; ² Oita University of Nursing and Health Sciences; ³ Taisho University; ⁴ Hitotsubashi University; ⁵ Kitanomaru Clinic; and ⁶ Ryukyu University*
- 9) Study on the prevention of health impairment due to overwork
Kenji Iwasaki, Takeshi Sasaki, Naomi Hisanaga, Lumie Kurabayashi and Ipppei Mori
- 10) Changes of motor function saccade in development and aging
Hideki Fukuda, Tatsuo Oka, Masaya Segawa¹, Yoshiko Nomura¹, Yasuo Terao² and Okihide Hikosaka³
¹*Segawa Neurological Clinic for Children, ²Department of Neurology, Tokyo University; and ³Eye Institute, NIH*
- 11) Development of the evaluation system of health and quality of life in aged workers.
Tatsuo Oka, Hideki Fukuda and Shin-ichi Sawada
- 12) Risk assessment for pneumoconiosis and asbestos-related diseases among construction workers - Phase II -
Ipppei Mori, Naomi Hisanaga, Hitoshi Kubota and Eiji Shibata¹
¹*Nagoya University*

Department of Health Effects Research

- 1) Relationships between exposure and body concentrations of industrial chemicals and health effects due to chemicals: Body concentration of propane derivatives following inhalation exposure and intra-peritoneal administration of these chemicals to rats
Megumi Suda, Takeshi Honma, Rui-Sheng Wang and Soichiro Sekiguchi
- 2) Effects of industrial chemicals on endocrine glands in mammals
Kenichi Kobayashi, Takeshi Honma and Megumi Suda
- 3) Studies on biological effects of mineral fibers and rare metal compounds
Noriko Otaki, Mitsutoshi Takaya, Norihiko Kohyama, Fumio Serita, Yasushi Shinohara, Mariko Ono-Ogasawara, Tadao Toya and Ayako Takata¹
¹*Department of Preventive Medicine and Public Health, School of Medicine, Keio University*
- 4) Analysis of the biological protection mechanisms against industrial chemicals in consideration of practical use in occupational health
Hirotoomo Yamada and Shinji Koizumi
- 5) Analysis of cellular function influenced by hazardous factors in working place

Nobuhiko Miura and Shinji Koizumi

- 6) Assessment of mutagenicity and chemicals testing guidelines
Yoshifumi Nakanishi, Katsuhiko Sawatari and Katsumi Ohtani
- 7) Poisoning cases due to exposure to chemical substance
Keiichi Katoh
- 8) Health effect indices in new situations of exposure to health hazard factors
Takeshi Honma, Megumi Suda, Rui-Sheng Wang, Kenichi Kobayashi, Muneyuki Miyagawa and Soichiro Sekiguchi
- 9) Single nucleotide polymorphisms of drug-metabolizing enzyme genes and interindividual variability in health effect of chemicals
Rui-Sheng Wang, Takeshi Honma and Megumi Suda
- 10) Experimental studies on the evaluation of cardiovascular effects in long working hours
Tetsuo Tai and Akinori Nakata

Department of Hazard Assessment

- 1) Analysis of molecular mechanisms involved in the health effects of industrial chemicals
Shinji Koizumi, Kaoru Suzuki, Terukazu Kobayashi and Rie Uenishi
- 2) Development of a method to screen the effect on gene function with a higher efficiency
Kaoru Suzuki, Shinji Koizumi, Terukazu Kobayashi and Rie Uenishi
- 3) Correlation between surface properties and carcinogenicity of silicon carbide whisker
Tadao Toya, Ayako Takata¹, Norihiko Kohyama, Mariko Ono-Ogasawara and Yasunosuke Suzuki²
¹Department of Preventive Medicine and Public Health, School of Medicine, Keio University; ²and Mount Sinai School of Medicine of the City University of New York
- 4) Visual function of workers and the in vitro design for studying toxic effects on the eyes
Ryo Suzuki
- 5) Studies on the analysis methods for evaluation of the effect on reproductive and immunological systems by the environmental incident of workplace
Katsumi Ohtani, Hisayo Kubota and Junzo Saegusa
- 6) Application of large tissue electron microscopic methods for reproductive toxicity
Hisayo Kubota, Katsumi Otani and Junzo Saegusa
- 7) Assessment of immunological indices on stress and fatigue
Akinori Yasuda
- 8) Assessment of gene mutations in malignant tumors relation to occupation and environment
Fumihiko Kitamura, Kazuhito Yokoyama¹ and Hisamasa Akabane²
¹Mie University and ²Yokosuka Kyouzai Hospital
- 9) Assessment of the health effects of the occupational and the environmental factors in Asian countries
Fumihiko Kitamura, Kazuhito Yokoyama¹, Tadashi Sakai², Yoko Morita² and Rusli Bin Nordin³
¹Mie University; ²Poisoning Center, Tokyo Rosai Hospital; and ³Malaysia Science University
- 10) Examination of the metal exposure evaluation by the biological monitoring procedure
Hiroyuki Saito

Department of Work Environment Evaluation

- 1) Study for relevance between kinds of dust, quantity and diseases in various kinds of pneumoconiosis
Norihiko Kohyama and Yasushi Shinohara
- 2) Development of prediction systems of toxicities of chemicals by their chemical structures

- Katsuhiko Sawatari and Yoshifumi Nakanishi*
- 3) Evaporation rates of organic solvents in several workplace settings
Sei-ichiro Kanno
 - 4) Evaluation of physical agent hazards
Tsutomu Okuno, Jun Ojima and Hiroyuki Saito
 - 5) Analysis and size separation methods of dust samples in working environment
Yasushi Shinohara, Norihiko Kohyama and Fumio Serita
 - 6) Evaluation method for the components of diesel particle
Mariko Ono-Ogasawara and Toshihiko Myojo
 - 7) Estimation of breakthrough time of respirator cartridges for organic vapors by monitoring exit vapor concentration
Mitsuya Furuse and Tsugio Takano
 - 8) Study on the advanced methods for measuring polychlorinated dibenzo-p-dioxins and polychlorinated dibenzofuranes [PCDDs/PCDFs]
Masayoshi Hagiwara, Norihiko Kohyama, Mitsutoshi Takaya and Yasutaka Ogawa

Department of Human Engineering

- 1) Development of a light sensing self-adjusting hood for welding fumes
Jun Ojima and Nobuyuki Shibata
- 2) Research of activated carbon with additive for adsorption of organic solvents gas in working place
Hironobu Abiko, Toshihiko Myojo and Mariko Ono-Ogasawara
- 3) Measurement of the capacity of respirator cartridges for various organic vapors
Tsugio Takano and Mitsuya Furuse
- 4) Development and evaluation of respiratory protective equipments with low breathing resistance
Toshihiko Myojo and Mitsumasa Sugimoto
- 5) Analysis of diesel exhaust substances and development of their purification methods
Toshihiko Myojo, Hironobu Abiko and Mariko Ono-Ogasawara
- 6) A study on vibration perception measurement of whole-body and hand-arm vibration
Setsuo Maeda and Yukio Takahashi
- 7) A study on vibration reduction effect of anti-vibration gloves
Setsuo Maeda and Yukio Takahashi
- 8) Studies on the effects of noise-direction on workers
Yukio Takahashi and Setsuo Maeda
- 9) Studies on the effects of low-frequency noise in working environments
Yukio Takahashi and Setsuo Maeda
- 10) Effects of working posture, work contents and age on low back pain
Kazuyuki Iwakiri, Susumu Saito, Midori Sotoyama, Hiroshi Jonai¹ and Ipppei Mori
¹Nihon University
- 11) Experimental studies on biological effects of physical factors in working environment
Junzo Saegusa and Hisayo Kubota
- 12) Study on the evaluation of biomechanical response to vibration in workplaces
Kazuo Kanada
- 13) Development of discretization-based contaminant diffusion model and its application to designing of local ventilation system
Nobuyuki Shibata and Jun Ojima

Department of Research Planning

- 1) Human system interaction of Information Technology
Susumu Saito, Midori Sotoyama, Hiroshi Jonai¹ and Kazuyuki Iwakiri
¹ Nihon University
- 2) Work physiological analysis of work loads in cold environments
Shin-ichi Sawada, Toshio Kobayashi¹ and Naomi Hisanaga
¹ Faculty of Medicine, Hiroshima University
- 3) Analysis of occupational diseases caused by abnormal temperature conditions based on Workmen's Accident Reports
Shin-ichi Sawada and Hideki Fukuda
- 4) International research collaboration for enactment of international standard on thermal working environments
Shin-ichi Sawada, Ingvar Holmér¹, Naomi Hisanaga and Norazman Bakrun²
¹ National Institute for Working Life, Sweden; ² National Institute of Occupational Safety and Health, Malaysia
- 5) Ergonomic research on VDT workstation and work environment design: Questionnaire survey on computer use at home
Midori Sotoyama, Kazuyuki Iwakiri, Susumu Saito, Hiroshi Jonai¹ and Ippei Mori
¹ Nihon University
- 6) The study on asbestos exposure and its related diseases among construction workers
Hitoshi Kubota, Naomi Hisanaga, Ippei Mori, Eiji Shibata¹ and Michihiro Kamijima¹
¹ Nagoya University
- 7) Needs of international cooperation in the field of occupational health and the effective way to fulfill them
Naomi Hisanaga, Yasutaka Ogawa, Shin-ichi Sawada and Ippei Mouri
- 8) Risk assessment of hazards affecting the nervous system among exposed workers
Mamoru Hirata, Hisataka Sakakibara¹ and Kazushi Taoda²
¹ Nagoya University, ² Shiga Medical University
- 9) Evaluation of health effects in long working hours or night work
Takeshi Sasaki, Kenji Iwasaki, Tatsuo Oka, Lumie Kurabayashi, Akinori Yasuda and Ippei Mori