

13:45-14:35, April 19 and 15:00-15:30, April 20

Poster Session

1. Chemistry (C)

P-1 High-throughput screening of thiosulfate sulfurtransferase (TST) selective inhibitors

Eita Sasaki¹, Takuto Kawate¹, Fan-Yan Wei², Hirotatsu Kojima³, Takayoshi Okabe³, Kenjiro Hanaoka¹

¹Graduate School of Pharmaceutical Sciences, Keio University, ²Department of Modomics Biology and Medicine, Institute of Development, Aging and Cancer, Tohoku University, ³Drug Discovery Initiative, Graduate School of Pharmaceutical Sciences, The University of Tokyo

P-2 Development of selective inhibitors for reactive sulfur species-producing enzyme, cystathionine β -synthase (CBS)

Ko Hirabayashi, Hisashi Ohno, Eita Sasaki, Kenjiro Hanaoka

Graduate School of Pharmaceutical Sciences, Keio University

P-3 Photocaged supersulfidation in cells using a thiol-specific bioconjugation reaction

Shoki Okai, Kazuya Matsuo, Tomonori Waku, Akio Kobori

Kyoto Institute of Technology

P-4 Synthesis of unprotected cyclic peptide methylene dithioacetals by rhodium-catalyzed oxidation of methanol to formaldehyde

Masana Yazaki, Mieko Arisawa

Kyushu University

2. Biochemistry (BC)

P-5 Retinoic acid upregulates Nox4-induced redox signal-dependent endothelial cell migration

Kei Miyano¹, Sae Mishima², Momoe Itsumi¹, Kumiko Terada¹, Shuichiro Okamoto³, Akira Yamauchi³, Futoshi Kuribayashi³, Shin-Ichiro Nishimatsu¹

¹Department of Natural Sciences, Kawasaki Medical School, ²Fifth Year Medical Student in fiscal year of 2025, Kawasaki Medical School, ³Department of Biochemistry, Kawasaki Medical School

- P-6 Effects of polysulfide-metabolizing enzymes on proliferation and metabolism in colorectal cancer**
Qing Da Wang¹, Ting Lu², Yu Ping Xin¹, Huai Wei Liu¹, Lu Ying Xun³
¹State Key Laboratory of Microbial Technology, Shandong University, Qingdao, People's Republic of China, ²School of Health and Life Sciences, University of Health and Rehabilitation Sciences, Qingdao, People's Republic of China., ³School of Molecular Biosciences, Washington State University, Pullman, WA, USA.
- P-7 Fine-tuning of iron transportation regulated by persulfidation of transferrin and its regulation by selenoprotein P in plasma**
Takashi Toyama¹, Miyuki Nara¹, Lisa Kageyama², Reona Tobita², Takakazu Nakabayashi², Yoshiro Saito¹
¹Laboratory of Molecular Biology and Metabolism, Graduate School of Pharmaceutical Sciences, Tohoku University, ²Laboratory of Bio-Structural Chemistry, Graduate School of Pharmaceutical Sciences, Tohoku University
- P-8 Involvement of Peroxiredoxin 6 in disturbance of selenium metabolism and ferroptosis sensitivity by methylmercury**
Hayato Takashima¹, Takashi Toyama¹, Junya Ito², Eikan Mishima², Yoshiro Saito¹
¹Laboratory of Molecular Biology and Metabolism, Graduate School of Pharmaceutical Sciences, Tohoku University, ²Helmholtz Munich
- P-9 Stimulation of anaerobic growth of cyanobacteria by reduced sulfur compounds**
Ami Ehara¹, Natsuki Kono¹, Kazuma Uesaka², Chisato Hosono³, Kazuki Terauchi³, Chihiro Azai¹
¹Faculty of Science and Engineering, Chuo University, ²Center for Gene Research, Nagoya University, ³Graduate School of Life Sciences, Ritsumeikan University
- P-10 Fluxomic and metabolomic analyses reveal the origin of cysteine in disulfide reductase deficient mouse liver**
Eszter Petra Juranyi^{1,2}, Edward Schmidt^{3,4}, Colin Miller³, Sydney Austad³, Tamas Ditroi¹, Zoe Seaford³, Reed Noyd³, Justin Prigge³, Gina Denicola⁵, Péter Nagy^{1,4,6}
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- P-11 Potential role of selenoprotein P in persulfide reduction**
Noemi Szanto¹, Takashi Toyama², Eszter Petra Juranyi^{1,3}, Katalin Erdelyi¹, Agnes Czikora¹, Tamas Ditroi¹, Yoshiro Saito², Péter Nagy^{1,4,5}
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- P-12 Characterization of cysteine persulfide synthases in *Arabidopsis thaliana***
 Saki Otsuka¹, Masaru Tsujii¹, Tomoaki Ida², Seiryō Ogata², Minkyung Jung², Takaaki Akaike², Yasuhiro Ishimaru¹, Nobuyuki Uozumi¹
¹Department of Biomolecular Engineering Graduate School of Engineering Tohoku University, ²Department of Environmental Medicine and Molecular Toxicology, Graduate School of Medicine, Tohoku University
- P-13 Enhanced de novo fatty acid synthesis through protein arginine methylation contributes to the acquisition of chemoresistance in triple-negative breast cancer**
 Takehiro Yamamoto^{1,4}, Tetsu Hayashida², Yohei Masugi³, Mai Itoh⁴, Takako Hishiki¹, Chiyoko Nishime⁴, Naoharu Takano⁵, Makoto Suematsu^{1,5}
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- P-14 Cystathionine β -synthase regulates calcium metabolism**
 Takashi Nakamura¹, Akiko Kubo², Takafumi Yoshioka³, Takehiro Yamamoto⁴, Tatsuya Yamamoto⁵, Isao Ishii⁶, Makoto Suematsu⁷
¹Oral Health Science Center, Tokyo Dental College, ²Division of Dermatology, Kobe University, ³Department of Ophthalmology, Asahikawa Medical University, ⁴Department of Biochemistry, Keio University School of Medicine, ⁵Bioorganic Research Institute, Suntory Foundation for Life Sciences, ⁶Department of Health Chemistry, Showa Pharmaceutical University, ⁷Central Institute for Experimental Medicine and Life Science
- P-15 Structural rearrangement of *E. coli* TusE accompanied with persulfidation is required for secure sulfur-transfer in the biosynthesis of tRNA 2-thiouridine**
 Yuji Tokunaga¹, Kenjo Miyauchi², Yuriko Sakaguchi², Miki Senda³, Ayaka Hiroi^{3,4}, Toshiya Senda³, Tsutomu Suzuki², Koh Takeuchi¹, Naoki Shigi⁵
¹Graduate School of Pharmaceutical Sciences, The University of Tokyo, ²Department of Chemistry and Biotechnology, Graduate School of Engineering, The University of Tokyo, ³Structural Biology Research Center, Institute of Material Structure Science, High Energy Accelerator Research Organization (KEK), ⁴Department of Materials Science and Bioengineering, Nagaoka University of Technology, ⁵Department of Life Science and Biotechnology, National Institute of Advanced Industrial Science and Technology (AIST)
- P-16 Comprehensive suppression of PRL family molecules leads to intracellular Mg²⁺-deficiency and cell death mediated by NF- κ B signaling**
 Koyuki Kawamura, Yosuke Funato, Hiroaki Miki
 Kyoto University

- P-17** **Novel persulfidation-induced high molecular weight oligomer of PRX1 and its chaperone-like activity**
Ren Nakae, Yosuke Funato, Osamu Hashizume, Hiroaki Miki
Laboratory of Biorecognition Chemistry, Department of Synthetic Chemistry and Biological Chemistry, Graduate School of Engineering, Kyoto University
- P-18** **Structure analysis of the Fe-S cluster biosynthesis protein complex SufBCD by cryo-electron microscopy**
Misato Tsuji¹, Josei Uchida², Yumiko Motoyama², Takeshi Yokoyama¹, Kei Wada², Yoshikazu Tanaka¹
¹Graduate school of Life Sciences, Tohoku University, ²Faculty of Medicine, University of Miyazaki
- P-19** **Maintaining ER homeostasis through persulfidation protein**
Hatsuho Kawauchi¹, Chika Tsutsumi¹, Kaiku Uegaki², Ryo Ushioda^{1,3}
¹Graduate school of Life sciences, Kyoto Sangyo University, ²Howard Hughes Medical Institute and Department of Cell Biology, Harvard Medical School, ³Institute of protein dynamics, Kyoto Sangyo University
- P-20** **Physiological functions of protein supersulfidation by cysteinyl-tRNA synthetase 1 (CARS1) in skeletal muscle**
Mei Omata¹, Yusuke Kusano^{1,2}, Shohei Murakami¹, Masanobu Morita³, Tomoaki Ida³, Keitaro Umezawa⁴, Tomoyoshi Soga⁵, Yukio Katori², Takaaki Akaike³, Hozumi Motohashi¹
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- P-21** **S-Sulfhydrated human serum albumin suppresses cellular levels of reactive oxygen and nitrogen species**
Mei Tokunaga¹, Mayumi Ikeda-Imafuku¹, Tatsuya Fukuta¹, Yu Ishima², Kazunori Kadota¹
¹Wakayama Medical University, ²Kyoto Pharmaceutical University
- P-22** **Bacterial cysteine-mediated inactivation of aminoglycoside antibiotics**
Katsuhiko Ono¹, Takuro Niidome², Takaaki Akaike³, Tomohiro Sawa¹
¹Department of Microbiology, Faculty of Life Sciences, Kumamoto University, ²Faculty of Advanced Science and Technology, Kumamoto University, ³Department of Environmental Medicine and Molecular Toxicology, Tohoku University Graduate School of Medicine
- P-23** **Identification of oxidative stress dependent mitochondrial tRNA modification**
Raja Norazireen Raja Ahmad¹, Akiko Ogawa¹, Long-Teng Zhang¹, Kazuyasu Kanazawa¹, Tomohiro Sawa², Fan-Yan Wei¹
¹Department of Modomics Biology and Medicine, Institute of Development Aging and Cancer, Tohoku University, ²Department of Microbiology, Faculty of Life Sciences, Kumamoto University

P-24 Molecular mechanism of Mtu1-catalyzed sulfur modification in mitochondrial tRNAs

Haruna Tani¹, Raja Norazireen Raja Ahmad¹, Longteng Zhang¹, Keitaro Umezawa², Akiyuki Nishimura³, Motohiro Nishida^{3,4}, Shungo Adachi⁵, Yuhei Arais⁶, Fan-Yan Wei¹

¹IDAC, Tohoku University, ²Tokyo Metropolitan Institute of Gerontology, ³National Institute for Physiological Sciences, ⁴Graduate School of Pharmaceutical Sciences, Kyushu University, ⁵National Cancer Center, ⁶Graduate School of Medical Science, Kanazawa University

P-25 Characterization of the role of bacterial tRNA selenium modification in protein translation

Kazuyasu Kanazawa¹, Raja Norazireen Raja Ahmad¹, Haruna Tani¹, Shigeru Matsuda¹, Akiko Ogawa¹, Elias S. J. Arnér², Fan-Yan Wei¹

¹Department of Modomics Biology and Medicine, Institute of Development, Aging and Cancer, Tohoku University, ²Division of Biochemistry, Department of Medical Biochemistry and Biophysics, Karolinska Institutet

P-26 Dynamic changes in NLRP3 supersulfidation drive inflammasome activation

Tianli Zhang¹, Akiyuki Nishimura², Hiroyasu Tsutsuki³, Kazuaki Monde³, Tetsuro Matsunaga¹, Motohiro Nishida^{2,4}, Takaaki Akaike⁵, Tomohiro Sawa³

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P-27 Identification of aminoacyl-tRNA synthetases as a new family of persulfide synthases

Satoshi Shimozawa¹, Tomoaki Ida², Minkyung Jung¹, Seiryu Ogata¹, Masanobu Morita¹, Tetsuro Matsunaga³, Tsuyoshi Takata¹, Hozumi Motohashi⁴, Takaaki Akaike¹

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P-28 Rhodanese functions as sulfurtransferase for *cyclo*-octasulfur (S₈) metabolism

Minkyung Jung¹, Tsuyoshi Takata¹, Yuka Unno², Akira Sato¹, Masanobu Morita¹, Tetsuro Matsunaga^{1,3,4}, Hozumi Motohashi⁴, Takaaki Akaike¹

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P-29 Sulfide quinone oxidoreductase (SQR)-mediated sulfur respiration in mitochondria by supersulfides in mammals

Masanobu Morita¹, Tetsuro Matsunaga^{1,2}, Tomoaki Ida¹, Seiryō Ogata¹, Tsuyoshi Takata¹, Minkyung Jung¹, Uladzimir Barayeu^{1,3}, Motohiro Nishida⁴, Hozumi Motohashi⁵, Takaaki Akaike¹

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P-30 Regulatory mechanism of supersulfides production in endothelial cells

Yuexuan Pan¹, Tsuyoshi Takata¹, Minkyung Jung¹, Uladzimir Barayeu^{1,2}, Seiryō Ogata¹, Tetsuro Matsunaga^{1,3}, Jun Yoshitake¹, Masanobu Morita¹, Takaaki Akaike¹

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P-31 Longevity regulation via supersulfides in yeast

Jun Yoshitake¹, Akira Nishimura², Tetsuro Matsunaga^{1,3}, Tomoaki Ida¹, Seiryō Ogata¹, Minkyung Jung¹, Masanobu Morita¹, Tsuyoshi Takata¹, Hozumi Motohashi⁴, Takaaki Akaike¹

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P-32 Supersulfide catalysis for nitric oxide and aldehyde metabolism mediated by alcohol dehydrogenase 5 (ADH5)

Zizai Shen¹, Masanobu Morita¹, Shingo Kasamatsu², Seiryō Ogata¹, Minkyung Jung¹, Tetsuro Matsunaga^{1,3}, Uladzimir Barayeu^{1,4}, Akira Nishimura⁵, Morshedul Alam⁶, Kakeru Shimoda⁷, Motohiro Nishida⁷, Hozumi Motohashi⁶, Takaaki Akaike¹

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P-33 The role of sulfite oxidase in mitochondrial supersulfide metabolism

Yingchi Xia¹, Masanobu Morita¹, Seiryō Ogata¹, Tetsuro Matsunaga²,
Uladzimir Barayeu¹, Minkyung Jung¹, Naim Hassan¹, Tsuyoshi Takata¹,
Hozumi Motohashi³, Takaaki Akaike¹

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P-34 NOX and NOS functioning as *cyclo*-octasulfur (S₈) synthases in supersulfide metabolism

Tsuyoshi Takata¹, Uladzimir Barayeu^{1,2}, Tetsuro Matsunaga^{1,3}, Minkyung Jung¹,
Seiryō Ogata¹, Masanobu Morita¹, Yukihiro Tsuchiya⁴, Yasuo Watanabe⁴,
Hozumi Motohashi⁵, Michito Yoshizawa⁶, Hideki Sumimoto⁷, Takaaki Akaike¹

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P-35 Differential vulnerability of round spermatids to ferroptosis during spermatogenesis

Leon Shen Yang Giesselink, Jasper Germeraad, Takako Kikkawa, Noriko Osumi

Department of Developmental Neuroscience, Tohoku University Graduate School of Medicine

P-36 Vitamin E mitigates an aging-associated shift in XY chromosome ratio in murine germ cells by modulating ferroptosis

Jasper Kevin Germeraad, Leon Shen Yang Giesselink, Takako Kikkawa, Noriko Osumi

Department of Developmental Neuroscience, Tohoku University Graduate School of Medicine, Sendai, Japan

P-37 Evaluation of physical and biological properties of tetrasulfide compounds with different terminal structures

Yuka Hamazaki, Yuki Kobayashi, Yu Ishima

Kyoto Pharmaceutical University

P-38 The analysis of UCP1 activation mechanism by lipidperoxidation in brown adipose

Yuto Ishikawa¹, Isshin Shiiba¹, Hidetaka Kozakura², Keitaro Umezawa³, Hideki Nishito⁴,
Kenichi Yamada², Shigeru Yanagi¹

¹Gakushuin University, ²Kyushu University, ³Tokyo Metropolitan Institute for Geriatrics and Gerontology, ⁴University of Miyazaki

P-39 **Regulatory mechanism for supplying heme-derived iron to mitochondria via ER-mitochondria contact sites**

Hijiri Oshio¹, Isshin Shiiba¹, Naoki Ito¹, Fuya Yamaguchi¹, Naozumi Okada¹, Yuto Ishikawa¹, Shun Nagashima², Yuuta Fujikawa², Keitaro Umezawa³, Yuri Miura³, Misaki Shimizu⁴, Yoshiro Saito⁴, Tomoyuki Yamaguchi², Ryoko Inatome¹, Shigeru Yanagi¹

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3. Molecular Genetics (MG)

P-40 **Localization and function of sulfur transferase ExtH in sulfur-reducing bacterium *Geobacter sulfurreducens***

Kosuke Ogiso¹, Daiki Fujita¹, Aoto Kudo¹, Anna Ochi¹, Masao Inoue², Riku Aono¹, Hisaaki Mihara¹

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P-41 **Heme-binding of SqrR and YgaV confers responsiveness to hydrogen sulfide under aerobic conditions with distinct coordination modes depending on heme iron redox state**

Ryoma Iwata, Shinji Masuda

Institute of Science Tokyo

P-42 **Mitochondrial activity is a critical determinant of lineage choice of megakaryocyte-erythroid progenitors**

Eunkyu Sung¹, Shohei Murakami¹, Tomoaki Ida², Masanobu Morita³, Takaaki Akaike³, Hozumi Motohashi^{1,4}

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P-43 **Inhibition of Drp1-Filamin interaction suppresses accumulation of lipid droplet and improves fatty liver via the increase of contact between mitochondria and lipid droplet**

Kohei Ariyoshi¹, Kazuhiro Nishiyama², Yuri Kato¹, Xinya Mi¹, Tomoya Ito¹, Akiyuki Nishimura³, Motohiro Nishida^{1,3}

¹Department of physiology, Graduate School of Pharmaceutical Sciences, Kyushu university, ²Laboratory of Prophylactic Pharmacology, Osaka Metropolitan University Graduate School of Veterinary Science, ³National Institute for Physiological Sciences (NIPS), National Institutes of Natural Sciences (NINS)

P-44 A mechanism of the ER homeostasis disruption by reductive stress

Yuna Baba¹, Shota Wada¹, Hiroaki Takayama³, Takashi Toyama²,
Toshinari Takamura³, Yoshiro Saito², Ryo Ushioda^{1,4}

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P-45 CTH is essential for zebrafish growth, whereas CBS is dispensable

Li Quan¹, Guilin Dong¹, Yuta Sato¹, Makoto Kashima², Makoto Kobayashi¹

¹University of Tsukuba, ²Toho University

P-46 Decoding renal urate transport system at the single-cell and transportsome levels

Yoshihiko Sakaguchi^{1,2}, Pattama Wiriyasermkul^{2,3}, Riko Sakaguchi^{2,4},
Masaki Miyasaka^{2,4}, Shushi Nagamori^{2,4}

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P-47 Approaches to elucidate stop codon readthrough phenomenon: Functional and structural insight

Koki Nomura¹, Yusuke Ohkubo¹, Arisa Suto², Takashi Matsui², Yoshio Kodera²,
Takeshi Yokoyama¹, Yoshikazu Tanaka¹

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P-48 Ribosome profiling of stalled ribosome sensor *Gcn1* knockout mouse embryonic fibroblasts

Shuya Kasai¹, Yuichi Shichino², Peixun Han², Yota Tatara¹, Junsei Mimura¹,
Shintaro Iwasaki^{2,3}, Ken Itoh¹

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4. Diseases & Clinical Medicine (DC)

P-49 Supersulfide production via CARS2 protected ischemic heart by maintaining mitochondrial function

Xiaokang Tang^{1,2}, Kakeru Shimoda^{1,3}, Akiyuki Nishimura^{1,2}, Masanobu Morita⁴, Takaaki Akaike⁴, Motohiro Nishida^{1,2,3}

¹National Institute of Natural Sciences, National Institute for Physiological Sciences, Department of Cardiovascular Signaling, ²The Graduate University for Advanced Studies, School of Life Science, Department of Physiological Sciences, ³Kyushu University, Graduate School of Pharmaceutical Sciences, Department of Physiology, ⁴Tohoku University, Graduate School of Medicine, Department of Environmental Medicine and Molecular Toxicology

P-50 Zn²⁺-dependent maintenance of redox homeostasis by TRPC6 activation underlies prevention of cardiac fibrosis

Chenlin Su¹, Xinya Mi¹, Tomoya Ito¹, Yuri Kato¹, Akiyuki Nishimura^{2,3,4}, Ryu Nagata⁵, Yasuo Mori⁶, Motohiro Nishida^{1,2,3,4}

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P-51 Involvement of NADPH oxidase 2-interacting TRPC channels in mouse heart failure with preserved ejection fraction

Kentaro Mizushima¹, Yuri Kato¹, Tomoya Ito¹, Xinya Mi¹, Akiyuki Nishimura², Motohiro Nishida^{1,2}

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P-52 Differences in protein supersulfidation in hearts with systolic and diastolic dysfunction

Yuya Nakamura¹, Koki Tachibana¹, Xiaokang Tang^{2,3}, Liuchenzi Zhou^{2,3}, Kentaro Mizushima¹, Yuri Kato¹, Tomoya Ito¹, Akiyuki Nishimura^{2,3}, Motohiro Nishida^{1,2,3}

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P-53 Cardiac cell remodeling: The influence of supersulfide catabolism

Liuchenzi Zhou^{1,2}, Akiyuki Nishimura^{1,2}, Xiangkang Tang^{1,2}, Yuri Kato³, Xinya Mi³, Motohiro Nishida^{1,2,3}

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- P-54 Inorganic sulfide prevents osimertinib-induced human cardiotoxicity**
Yuga Nakaguma¹, Moe Kondo^{1,2}, Yuya Nakamura¹, Yuri Kato¹, Tomoya Ito¹, Akiyuki Nishimura³, Motohiro Nishida^{1,3}
¹Graduated school of Pharmaceutical Sciences, Kyushu University, ²Graduate School of Medical Sciences, Kyushu University, ³National Institute for Physiological Sciences (NIPS) and Exploratory Research Center on Life and Living Systems (ExCELLS), National Institutes of Natural Sciences
- P-55 Amelioration of diabetes by curcumin derivatives through inhibition of the synthesis of selenoprotein P, an exacerbation factor of diabetes**
Yinuo Wang¹, Takashi Toyama¹, Hiroyuki Yamakoshi², Yoshiharu Iwabuchi², Yoshiro Saito¹
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- P-56 Promotion of lead-induced cytotoxicity via ER stress in differentiating neural cells and protective effects of selenium and SELENOK**
Satoru Shiina, Takayuki Kaneko, Takashi Toyama, Yoshiro Saito
 Laboratory of Molecular Biology and Metabolism, Graduate School of Pharmaceutical Sciences, Tohoku University
- P-57 Inhibition of Nrf2 in Nrf2-upregulated glioblastoma increases ferroptosis resistance- Role of heme oxygenase 1**
Stephanie Ka Kiu Siu, Takashi Toyama, Yoshiro Saito
 Tohoku University Graduate School of Pharmaceutical Sciences, Laboratory of Molecular Biology and Metabolism
- P-58 Host redox regulation in the pathogenicity of SubAB toxin from Shiga toxin-producing *Escherichia coli***
Hiroyasu Tsutsuki¹, Tianli Zhang², Kinnosuke Yahiro³, Takaaki Akaike⁴, Tomohiro Sawa¹
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- P-59 Protective roles of supersulfides on acetaminophen induced liver injury**
Chunyu Guo¹, Hiroyasu Tsutsuki¹, Touya Toyomoto¹, Katsuhiko Ono¹, Yukio Fujiwara¹, Stephen Lindahl², Ming Xian², Tomohiro Sawa¹
¹Kumamoto University, ²Brown University

P-60 Anti-inflammatory effects of supersulfides on influenza A virus infection in mice

Foysal Hossen¹, Hiroyasu Tsutsuki¹, Takahisa Kouwaki¹, Tianli Zhang³, Yukio Fujiwara¹, Hiroyuki Oshiumi¹, Takaaki Akaike², Tomohiro Sawa¹

¹Kumamoto University, ²Tohoku University, ³Akita University

P-61 Selenoprotein P suppression by NRF2 activation drives selenoprotein trade-off and ferroptosis resistance in hepatocellular carcinoma

Kotoko Arisawa, Tetta Hiranuma, Moeka Natori, Takashi Toyama, Yoshiro Saito

Graduate School of Pharmaceutical Sciences, Tohoku University

P-62 Microbial supersulfides contribute to host protection against oxidative stress

Jun Uchiyama^{1,2}, Masahiro Akiyama¹

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P-63 Vitamin B6 mitigates ferroptosis by promoting supersulfide synthesis in bleomycin-induced pulmonary fibrosis

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P-64 Cisplatin-induced ferroptosis is preferentially induced in proximal tubule S3 segment-derived immortalized cells

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P-65 Synthesis and evaluation of supersulfides-containing ionic liquids for dermatological diseases

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P-66 Supersulfides contribute to joint homeostasis and bone regeneration

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P-67 Supersulfides protect against SARS-CoV-2 infection via suppression of the viral thiol proteases

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P-68 Breath omics developed for a hamster model of SARS-CoV-2 infection

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P-69 Supersulfide metabolome of exhaled breath condensate for diagnostic biomarkers of esophageal cancer

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5. Methodology (M)

P-70 Robust determination of coenzyme Q10 redox status using two isotope-labeled internal standards

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P-71 High sensitive and high signal-to-noise ratio Raman measurements of biological macromolecules using liquid-liquid phase separation and application to the detection of supersulfide structures

Lisa Kageyama, Reona Tobita, Shinya Tahara, Shinji Kajimoto, Takakazu Nakabayashi

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P-72 Raman imaging reveals the regulatory mechanism of ferroptosis by the application of external lipids

Ryota Dobashi, Masato Machida, Shinji Kajimoto, Takakazu Nakabayashi

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P-73 Development of a new detection method for supersulfide molecules using Raman scattering

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P-74 Detection of protein polysulfidation using a β -(4-hydroxyphenyl)ethyl iodoacetamide derived biotin tag HPB

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P-75 Development of new chemical tools for comprehensive analysis of supersulfidated biomolecules and proteins

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P-76 Quantitative redox proteomics of human muscle response to exercise identified p62 oxidation as necessary in contraction mediated adaptations

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P-77 Development of nucleic acid aptamers that bind conformation-restricted analogues of amyloid supersulfide

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P-78 Development of a mitochondria-targeting fluorescence probe for detecting hydrogen peroxide based on steric repulsion-induced twisted intramolecular charge transfer

Mizuki Sugimoto, Eita Sasaki, Hisashi Ohno, Kenjiro Hanaoka

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P-79 Fluorescence imaging of newly synthesized proteins and their degradation dynamics in living cells

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P-80 Development of a fluorescence probe for singlet oxygen based on the p-TICT mechanism

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P-81 Quantitative profiling of supersulfides in foods: Advances in sulfur-containing compounds analysis for nutritional and health applications

Hideshi Ihara, Shingo Kasamatsu, Ayaka Kinno, Somei Komae, Chiharu Miura, Kirara Tanaka, Haruka Nitta, Wakana Nagamura

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P-82 Supersulfide proteome analysis for the detection of protein modification

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Breath supersulfide analysis for disease profiling

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Mercapto-NSAIDs generate a non-steroidal anti-inflammatory drug (NSAID) and hydrogen sulfide

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