Abstracts of papers presented
at the 2026 Cold Spring Harbor Asia Conference
Awaji, Japan

IRON, REACTIVE OXYGEN SPECIES & FERROPTOSIS IN LIFE, DEATH & DISEASE

November 15–November 19, 2026

Arranged by

Quan Chen, *Nankai University*
Marcus Conrad, *Helmholtz Zentrum München*
Xuejun Jiang, *Memorial Sloan Kettering Cancer Center*
Hozumi Motohashi, *Tohoku University*
Yoshiro Saito, *Tohoku University*
Brent Stockwell, *Columbia University*
Shinya Toyokuni, *Nagoya University*

Cold Spring Harbor Conferences Asia
Cold Spring Harbor Laboratory

IRON, REACTIVE OXYGEN SPECIES & FERROPTOSIS IN LIFE, DEATH & DISEASE

Sunday, November 15 – Thursday, November 19, 2026

Sunday	6:30 pm 6:45 pm	**Introduction** **1** Redox Regulation of Ferroptosis
Sunday	9:00 pm	*Social time / sake barrel opening*
Monday	9:00 am	**2** Selenium Biology and Oxidative Damage I
Monday	12:00 pm	Lunchtime “Meet the Editors”
Monday	1:30 pm	**Poster Session I**
Monday	3:30 pm	**3** Selenium Biology and Oxidative Damage II
Monday	6:30 pm	**4** Iron Biology
Monday	9:00 pm	*Social time*
Tuesday	9:00 am	**5** Lipid Metabolism
Tuesday	1:00 pm	*Excursion*
Tuesday	7:00 pm	**6** Metabolism
Tuesday	9:00 pm	**Poster Session II** *with refreshments*
Wednesday	9:00 am	**7** Physiology
Wednesday	1:30 pm	**8** Cancer and Disease
Wednesday	6:00 pm	*Cocktails and Banquet* ***Sponsored by Dojindo***
Wednesday	9:00 pm	*Social time / refreshments*
Thursday		*Departure*

Awaji Yumebutai Conference Center
Meeting venue: Main Hall, 2nd floor of the Conference Center
Poster session: B1F Lobby
CSHA office: Room 202
Breakfast*: Coccolare, 2nd floor of Grand Nikko Awaji

Dinner & Lunch

11/15 (Sun): 2F Reception Hall B Welcome Reception
11/16 (Mon): B1F Event Hall Lunch/Dinner
11/17 (Tue): B1F Event Hall Lunch/Dinner
11/18 (Wed): B1F Event Hall Lunch
Cocktails: Cielo, 1st floor of Grand Nikko Awaji
Banquet: Stella, 1st floor of Grand Nikko Awaji
*Only available for guests staying at Grand Nikko Awaji

PROGRAM

SUNDAY, November 15—6:30 PM

Introduction and Welcome

SESSION 1 REDOX REGULATION OF FERROPTOSIS

Chairpersons: **Scott Dixon,** Stanford University, Stanford, California, USA
Namgyu Lee, Korea University, Seoul, South Korea

Supersulfides in skeletal muscle homeostasis
Hozumi Motohashi. [20'+10']
Presenter affiliation: Tohoku University, Sendai, Japan. 1

Stromal cysteine supply rewires xCT dependence and ferroptosis vulnerability in the tumor microenvironment
Gina M. DeNicola. [20'+10']
Presenter affiliation: H. Lee Moffitt Cancer Center, Tampa, Florida. 2

Break

Mitochondrial redox control and ferroptosis
Boyi Gan. [10'+5']
Presenter affiliation: The University of Texas MD Anderson Cancer Center, Houston, Texas. 3

Breath biomarkers for monitoring in vivo redox metabolism
Yuta Matsuoka. [10'+5']
Presenter affiliation: Kyoto University, Kyoto, Japan. 4

Mitochondria-derived H_2O_2 predisposes cells to ferroptosis
Jiashuo Zheng, Weijia Zhang, Seon Min Kim, Yvonne Wohlfarter, Eikan Mishima, Markus A. Keller, Yun Pyo Kang, Marcus Conrad. [10'+5']
Presenter affiliation: Helmholtz Munich, Munich, Germany. 5

A new layer of ferroptosis control—Reversible S-acylation and lipid peroxide defence
Laurence Abrami, Francisco Mesquita, Octave Joliot, Romain Forey, William Verdier, Didier Trono, F. Gisou van der Goot. [10'+5']
Presenter affiliation: École Polytechnique Fédérale de Lausanne (EPFL), Lausanne, Switzerland. 6

SUNDAY, November 15—9:00 PM

Social Time & Sake Barrel Opening

MONDAY, November 16—9:00 AM

SESSION 2 SELENIUM BIOLOGY AND OXIDATIVE DAMAGE I

Chairpersons: **Boyi Gan,** University of Texas MD Anderson Cancer Center, Houston, Texas, USA
Gina DeNicola, H. Lee Moffitt Cancer Center, Tampa, Florida, USA

Excessive selenium induces a distinct form of metabolic cell death
Namgyu Lee. [20'+10']
Presenter affiliation: Korea University College of Medicine, Seoul, South Korea. 7

Ferroptosis regulation by selenium flux—The selenoprotein P cycle, lncRNA control, and disease
Yoshiro Saito. [20'+10']
Presenter affiliation: Tohoku University, Sendai, Japan. 8

Se-mercuration of selenoprotein P disrupts selenium utilization lead to the imbalance of redox homeostasis
Takashi Toyama, Runa Kudo, Hayato Takashima, Yoshiro Saito. [10'+5']
Presenter affiliation: Tohoku University, Sendai, Japan. 9

Break

Development of new chemical tools for the detection of ferroptosis-relevant chemical species
Tasuku Hirayama. [20'+10']
Presenter affiliation: Gifu Pharmaceutical University, Gifu, Japan. 10

Lysosomal lipid peroxidation and membrane repair failure in ferroptosis
Ken-ichi Yamada. [20'+10']
Presenter affiliation: Kyushu University, Fukuoka, Japan. 11

Redox protein modification controls plasma membrane lipid peroxidation during ferroptosis
Eun-Woo Lee. [10'+5']
Presenter affiliation: Korea Research Institute of Bioscience & Biotechnology, Daejeon, South Korea; University of Science and Technology (UST), Daejeon, South Korea. 12

MONDAY, November 16—12:00 PM

Lunchtime Meet the Editors

MONDAY, November 16—1:30 PM

POSTER SESSION I

Effects of MFG-E8 on hepatic iron accumulation and ferroptosis-related parameters in LPS-induced experimental sepsis model
Caner Yildirim, Asli Karakiliç, Arzu Yildirim Özlük, Merve Akis Yilmaz.
Presenter affiliation: Balikesir University, Faculty of Medicine, Balikesir, Turkey. 13

The role of acid sphingomyelinase-mediated ceramide generation in ferroptosis
Asma Al nuaimi, Faisal Thayyullathil, Anees Cheratta, Siraj Pallichankandy, Karthikeyan Subburayan, Ameer Alakkal, Sehamuddin Galadari.
Presenter affiliation: New York University Abu Dhabi, Saadiyat Island, Abu Dhabi, United Arab Emirates. 14

Thymoquinone exploits KEAP1-redox signaling to induce cancer cell death and tumor suppression
Ameer Alakkal, Faisal Thayyullathil, Siraj Pallichankandy, Karthikeyan Subburayan, Anees Rahman Cheratta, Asma Alnuaimi, Palanikumar Loganathan, Mazin Magzoub, Sehamuddin Galadari.
Presenter affiliation: New York University Abu Dhabi, Abu Dhabi, United Arab Emirates. 15

KEAP1 mRNA-based therapy restores ferroptosis sensitivity by targeting the NRF2–FSP1 axis in non-small cell lung cancer
Karoline Almeida Lima, Luisa K. Piratello, Clarissa R.R. Rocha.
Presenter affiliation: Federal University of Sao Paulo, São Paulo, Brazil. 16

Identification of druggable and redox vulnerabilities in cancer
Liron Bar-eled.
Presenter affiliation: MGH, Harvard Medical School, Boston, Massachusetts. 17

Opposing roles of EMT-tfs on ferroptosis sensitivity in cancer
Nino Bindel, Katharina Siebenkaes, Annemarie Schwab, Simone Brabletz, Thomas Brabletz.
Presenter affiliation: FAU Erlangen-Nuremberg, Erlangen, Germany. 18

Particulate matter-induced alveolar epithelial dysfunction in the pathogenesis of COPD
Nahyeon Yang, Hye-Jin Boo.
Presenter affiliation: Jeju National University College of Medicine, Jeju-si, South Korea; Jeju National University, Jeju-si, South Korea. 19

GPX8 deficiency impairs lipid homeostasis and sensitizes cells to lipotoxic stress
Katalin J. Buday, Sebastian G. Doll, Pedro F. Angeli, Svenja Lorenz, Maceler Aldrovandi, Botond L. Szabolcs, Alexandra Lakatos, Dorottya Pál, Mami Sato, Kemény V. Lajos, Marcus Conrad.
Presenter affiliation: Semmelweis University, Budapest, Hungary; Helmholtz Zentrum München, München, Germany; EP PerMed, Budapest, Hungary; Lendület "Momentum", Budapest, Hungary. 20

Spatial transcriptomics identifies NOX4 as potential target in mediating alpha-synuclein induced oxidative stress
Maria J. Caiado, Janssen M. Kotah, Luis A.G. Molina, Tineke van der Sluis, Marianne G. Rots, Bart J.L. Eggen, Amalia M. Dolga, Wilfred F.A. den Dunnen.
Presenter affiliation: University Medical Centre Groningen, Groningen, the Netherlands; University of Groningen, Groningen, the Netherlands. 21

Harnessing ferroptosis for life—Physiological lipid peroxidation drives epidermal cornification
Nina Kuprasertkul, Chase Chen, Ashley Anderson, Brian Capell.
Presenter affiliation: University of Pennsylvania, Philadelphia, Pennsylvania. 22

Intracellular Salmonella hijacks the mitochondrial citrate carrier to evade iron-dependent oxidative death
Chieh-Hua Fu, Yu-Ting Hsu, Chia-Rin Hsieh, Shu-Jung Chang.
Presenter affiliation: National Taiwan University, Taipei, Taiwan. 23

BACH1 as a modulator of ferroptosis—Antagonizing NRF2-driven antioxidant responses in tumor cells
Ana Beatriz da Silva Teixeira, Izadora de Souza, Arthur Casulli de Oliveira, José Pedro Friedmann Angeli, Clarissa Reily Rocha.
Presenter affiliation: Federal University of São Paulo, São Paulo, Brazil. 24

Ferroptosis induces heterogeneous death profiles that are controlled by lysosome rupture
Jyotirekha Das, Saloni K. Hombalkar, Alison D. Klein, Esraa Nsasra, Muskaan Vasandani, Kay Petruzzi, Dajun Lu, Stephen Ruiz, Orit Kliper-Gross, Jiachen Hu, Michelle Riegman, Xuejun Jiang, Daniel A. Heller, Assaf Zaritsky, Michelle S. Bradbury, Michael Overholtzer.
Presenter affiliation: Memorial Sloan Kettering Cancer Center, New York, New York. 25

Dual-action organoselenium compounds suppress ferroptosis through GPX-like and radical-trapping antioxidant activities
Sourav Das, SharathBabu N. Bidare, Govindasamy Mugesh.
Presenter affiliation: Indian Institute of Science, Bengaluru, India. 26

Identification and characterization of a dedicated selenite transporter that sustains ferroptosis resistance
Sena Atici, Panagiotis Kreouzis, Gholamreza Fazeli, Maria Schwarz, Zhiyi Chen, Ancély Ferreira dos Santos, Mami Sato, Namgyu Lee, Hamed Alborzinia, Eikan Mishima, Marcus Conrad, Anna P. Kipp, Raimund Dutzler, José Pedro Friedmann Angeli.
Presenter affiliation: University of Würzburg, Würzburg, Germany. 27

Increased free PUFA accumulation in response to FASN inhibition promotes ferroptosis
Hanna Feinsod, Brent R. Stockwell.
Presenter affiliation: Columbia University, New York, New York. 28

Eliminating Yap1 causes cell dysfunction and ferroptosis of differentiated retinal pigment epithelial cells followed by retinal inflammation and death of photoreceptor neurons
Silvia C. Finnemann, Christin Hanke-Gogokhia, Stephanie A. Lieffrig, Dmytro Shved.
Presenter affiliation: Fordham University, Bronx, New York. 29

Brain region–specific iron and lipid dys-homeostases link entorhinal cortex vulnerability to Alzheimer's tau pathology
Johannes Frank, Sofie Lautrup, Maria M. Tretowitcz, Frederic M. Vaz, Dag A. Brede, Georges E. Janssens, Riekelt H. Houtkooper, Evandro F. Fang.
Presenter affiliation: University of Oslo and Akershus University Hospital, Lørenskog, Norway. 30

Ferroptotic vulnerability of post-meiotic germ cells skews sex chromosome ratios in aged testis
Jasper K. Germeraad, Takako Kikkawa, Junya Ito, Leon S.Y. Giesselink, Wilfred T.V. Germeraad, Bernhard Henkelmann, Maceler Aldrovandi, Kenshiro Hara, Kentaro Tanemura, Kiyotaka Nakagawa, Eikan Mishima, Marcus Conrad, Noriko Osumi.
Presenter affiliation: Tohoku University, Sendai, Japan. 31

Elucidating PTEN-mediated modulation of ferroptosis in glioma tumorigenesis
Manoj Girish, Keerthana R, Sainitin Donakonda, Parichay J. Perikal, Sunil V. Furtado, Swati Sinha.
Presenter affiliation: MS Ramaiah University of Applied Sciences, Bangalore, Karnataka, India. 32

Spatial imaging of iron-induced myeloid changes that sensitize TNBC for immunotherapy
Elana N. Apfelbaum, Nermin Mustafa, Edwin Pratt, Benjamin Shapiro, Izabella Chavera, Jan Grimm.
Presenter affiliation: Memorial Sloan Kettering Cancer Center, New York, New York. 33

Gold-mediated thiomalate masking triggers ferroptosis in cancer cells
Lissy Z.F. Gross, Martín Hugo, Andresa Messias, Lucia Alcober-Boquet, Thibaut Vignane, Biplab Ghosh, Nesrine Aroua, Susana Delgado-Martín, Sebastian Müller, Antonio Martínez-Ruiz, Raphaël Rodriguez, Andreas Trumpp, Carsten Berndt, Elias S.J. Arnér, Milos R. Filipovic, Santiago Di Lella, Daniel Pastor-Flores, Hamed Alborzinia.
Presenter affiliation: Heidelberg Institute for Stem Cell Technology and Experimental Medicine (HI-STEM gGmbH), Heidelberg, Germany; German Cancer Research Center (DKFZ), Heidelberg, Germany. 34

Ferroptosis resistance in the novel resistant cancer cell population SRCC is maintained by non-canonical NOTCH1 signaling
Hongli Huang, Yihan Chai, Xuewei Wu, Sen Wang, Yanyan Wang, Wen Zheng, Binglin Li, Xiayi Lyu, Wei Guo.
Presenter affiliation: Zhejiang University, Haining, China; The University of Edinburgh, Edinburgh, United Kingdom. 35

Double-bond geometry determines fatty acid metabolic fate and ferroptosis sensitivity
Cynthia A. Harris, Shunji Kato, Yurika Otoki, Elisa Martin Perez, Dylan Boone, Juan Lorenzo B. Pablo, Anna Greka, James A. Olzmann.
Presenter affiliation: University of California, Berkeley, Berkeley, California. 36

A prevalent ALDH2 polymorphism protects against ferroptosis through 4-HNE-dependent regulation of GPX4
Yusuke Hirata, Koki Yokota, Jumpei Omi, Yusuke Hatakawa, Seon Hwa Lee, Tomoyuki Oe, Junya Ito, Kiyotaka Nakagawa, Takuya Noguchi, Motoharu Hamada, Atsushi Matsuzawa.
Presenter affiliation: Tohoku University, Sendai, Japan. 37

A triple-color reporter strategy to investigate MARCHF6-dependent substrate regulation under ferroptotic stress
Jowoo Hong, Cheol-Sang Hwang.
Presenter affiliation: Korea University, Seoul, South Korea. 38

A five-protein signature predicts sensitivity to GPX4 inhibition
Juliana A. Hüther, Julia Mergner, Andreas J. Gruber, Markus Rehm.
Presenter affiliation: University of Stuttgart, Stuttgart, Germany. 39

LRP8 degradation impairs selenoprotein expression and drives ferroptosis in cancer cells
Alex Inague, Fangzhu Zhao, James A. Wells, James A. Olzmann.
Presenter affiliation: UC Berkeley, Berkeley, California. 40

Inhibition of ferroptosis by quinone compounds and the contributions of FSP1 and NQO1
Kei Ishida, Junya Ito, Hyayato Takashima, Yusuke Hirata, Eikan Mishima, Atsushi Matsuzawa, Takashi Toyama, Yoshiro Saito.
Presenter affiliation: Tohoku University, Sendai, Japan. 41

Dietary intervention modulates ferroptosis sensitivity in hepatocellular carcinoma via metabolic reprogramming
Jenny Jin, Liam N. Stiles, Tal Hirschhorn, Vasiliki Polychronidou, Marcella Steffani, Presha Rajbhandari, Jiewen Zheng, Mars A. Fongheiser, Sinn Kay Olivia Chan, Ladan Fazlollahi, Vera Garcia Outeiral, Nicolae Ciobu Zubenco, Yoko Yagishita, Viraj R. Sanghvi, Utpal B. Pajvani, Robert F. Schwabe, Brent R. Stockwell.
Presenter affiliation: Columbia University, New York, New York. 42

Testosterone promotes placental apoptosis and disrupts uterine–placental remodeling in pre-eclampsia
Hyeon-Gu Kang, Min Jae Kim, Yeong-Min Kim, Na Gyeong Lee, In Hwan Kim, Han Sol Kim, Beum-Soo An.
Presenter affiliation: College of Natural Resources & Life Science/Life and Industry Convergence Research Institute, Pusan National University, Miryang, South Korea. 43

Dual-isotope LC–MS/MS for oxidation-corrected subcellular coenzyme Q redox profiling
Tae Ha Kim, Yun Pyo Kang.
Presenter affiliation: Seoul National University, Seoul, South Korea. 44

Complex mitochondrial lipid remodeling networks link defective membrane repair to ferroptosis resistance
Yvonne Wohlfarter, Judith Hagenbuchner, Nina Weidacher, Utku Horzum, Markus Seifert, Janik Kokot, Viktorija Juric, Hesso Farhan, Günter Weiss, Markus A. Keller.
Presenter affiliation: Medical University of Innsbruck, Innsbruck, Austria. 45

***Camellia sinensis*-derived nanovesicles attenuate ROS-mediated oxidative injury in H_2O_2-stressed HepG2 cells**
Han Sol Kim, Min Jae Kim, Hyeon-Gu Kang, Yeong-Min Kim, Na Gyeong Lee, In Hwan Kim, Beum-Soo An.
Presenter affiliation: College of Natural Resources & Life Science/Life and Industry Convergence Research Institute, Pusan National University, Miryang, South Korea. 46

Extracellular vesicle–mediated delivery of bisphenol A alters cell survival and endocrine signaling in breast cancer cells
In Hwan Kim, Min jae Kim, Hyeon-Gu Kang, Yeong-Min Kim, Na Gyeong Lee, Han Sol Kim, Beum-Soo An.
Presenter affiliation: Pusan National University, Miryang, South Korea. 47

Structural modeling of NADPH–MARCHF6 interaction in ferroptosis regulation
Jeong-Min Kim, Cheol-Sang Hwang.
Presenter affiliation: Korea University, Seoul, South Korea. 48

Jiwon Kim, Soo Hyun Nan, Geon Seong Lee, Hye Yoon Chung, Eun Young Kim, Jeong Pil Han, Byung Ok Choi, Su Cheong Yeom.
Presenter affiliation: Seoul National University, Pyeongchang, South Korea. 49

Methionine metabolism is linked with phospholipid and glutamine metabolism to drive ferroptosis
Jong Woo Kim, Seo Young Jang, Yeon Jun Rho, Tackhoon Kim, Yun Pyo Kang, Hee Min Yoo, Chuna Kim, Scott J. Dixon, Dong Wook Choi, Geum-Sook Hwang, Eun-Woo Lee.
Presenter affiliation: Korea Research Institute of Bioscience and Biotechnology, Daejeon, South Korea. 50

Extracellular vesicles enhance polystyrene nanoplastic accumulation and disrupt blood–brain barrier integrity
Min Jae Kim, Hyeon-Gu Kang, Yeong-Min Kim, Na Gyeong Lee, In Hwan Kim, Han Sol Kim, Beum-Soo An.
Presenter affiliation: Pusan National University, Miryang, South Korea. 51

Dual-isotope LC-MS/MS analysis of coenzyme Q redox dynamics in ferroptosis
Tae Ha Kim, Yun Pyo Kang.
Presenter affiliation: Seoul National University, Seoul, South Korea. 52

Butylparaben induces apoptosis-associated cytotoxicity and inflammatory responses in human dermal papilla cells and C57BL/6 mice
Yeong-Min Kim, Min jae Kim, Hyeon-Gu Kang, Na Gyeong Lee, In Hwan Kim, Han Sol Kim, Beum-Soo An.
Presenter affiliation: College of Natural Resources & Life Science/Life and Industry Convergence Research Institute, Pusan National University, Miryang, South Korea. 53

Development and application of a screening method for evaluating the ferroptosis-inhibitory effects of extracts from food and underutilized resources
Sho Kobayashi, Yasushi Mori, Shota Uesugi, Naomi Abe-Kanoh, Kiharu Igarashi, Hideyo Sato.
Presenter affiliation: Yamagata University, Tsuruoka, Japan; Iwate University, Morioka, Japan. 54

ISCA2 inhibition triggers iron accumulation and ferroptosis with significant efficacy in solid tumors
Mei Koh, Marin Jones, Nainpriya Babbar.
Presenter affiliation: Kuda Therapeutics Inc, Salt Lake City, Utah; University of Utah, Salt Lake City, Utah. 55

Mitochondrial alterations associated with the progression of multiple myeloma are linked to differential sensitivity to PGC-1α-induced cell death
Kohei Kunimoto, Shoei Suzuki, Akinori Taketani, Shohei Kikuchi, Akinori Wada, Tsutomu Sato, Masahiro Shimizu, Keiichi Koizumi, Shota Yonezawa, Takayuki Haruki, Yusuke Oshima.
Presenter affiliation: University of Toyama, Toyama, Japan; Toyama University Hospital, Toyama, Japan. 56

MITF-driven regulation of cellular ROS homeostasis in cutaneous melanoma
Alexandra I.T. Lakatos, Dorottya M.P. Pál, Botond L. Szabolcs, Katalin Buday, Elisabeth M. Roider, Akinori Kawakami, Alicia McConnell, Leonard Zon, David E. Fisher, Lajos V. Kemény.
Presenter affiliation: HCEMM-SU, Budapest, Hungary; MTA-SU, Budapest, Hungary; Semmelweis University, Budapest, Hungary. 57

Identification of small-molecule modulators of MARCHF6-dependent ferroptosis
Hyun-seok Lee, Sang-Hyeon Mun, Cheol-Sang Hwang.
Presenter affiliation: Korea University, Seoul, South Korea. 58

Epoxide hydrolase inhibition suppresses iron accumulation, lipid peroxidation, and neurodegeneration in a *Caenorhabditis elegans* model of PLAN
Kin Sing Stephen Lee, Fatemeh Yousefsaber.
Presenter affiliation: Michigan State University, East Lansing, Michigan. 59

15(*S*)-hydroxyeicosatrienoic acid drives conserved ferroptosis-associated neurodegeneration
Kin Sing Stephen Lee, Fatemeh Yousefsaber.
Presenter affiliation: Michigan State University, East Lansing, Michigan. 60

Preeclampsia-like trophoblast EVs impair recipient trophoblast function
Na Gyeong Lee, Min Jae Kim, Hyeon Gu Kang, Yeong Min Kim, In Hwan Kim, Han sol Kim, Beum Soo An.
Presenter affiliation: Pusan National University, Miryang-si, South Korea. 61

Exploiting enhanced ferroptosis sensitivity as a therapeutic strategy for oxaliplatin-resistant colorectal cancer
Na Yeong Lee, Jung-Hyun Shim.
Presenter affiliation: Mokpo National University, Muan, South Korea. 62

Functional genomic screening identifies synthetic lethal vulnerability to GPX4 inhibition in cholangiocarcinoma
Ye Rim Lee, Chaeyoung Seo, Abdullah Md, Seung Jin Lee.
Presenter affiliation: AI-Biology & Pharmaceutical Science, Chungnam National University, Daejeon, South Korea; College of Pharmacy, Chungnam National University, Daejeon, South Korea. 63

Hippo pathway controls biopterin metabolism to shield adjacent cells from ferroptosis in lung cancer
Hao Li, Yohei Kanamori, Akihiro Nita, Toshiro Moroishi.
Presenter affiliation: Kumamoto University, Kumamoto, Japan; Kwansei Gakuin University, Sanda, Japan. 64

Coumestrol induces ferroptosis in colorectal cancer through the NOLC1–p53–SLC7A11 axis
Shikun Li, Xiaoping Cheng, Ziyi Xiong, Keshen Zhou.
Presenter affiliation: The First Affiliated Hospital of China Medical University, Shenyang, China. 65

A fin-loop-like structure in GPX4 underlies neuroprotection from ferroptosis—From structural insights to single-cell resolution
Svenja M. Lorenz, Adam Wahida, Mark Bostock, Tobias Seibt, André S.D. Mourão, Dietrich Trümbach, Anastasia Levkina, Tanja Orschmann, Daniel F. Kaemena, Michelle Vincendeau, Markus J. Kraiger, Sanath K. Ramesh, Ashok K. Jayavelu, Grzegorz M. Popowicz, Marcus Conrad.
Presenter affiliation: Helmholtz Zentrum München, Neuherberg, Germany. 66

MEN1 deficiency creates a selenite-dependent switch in ferroptosis
Ronnie Ren Jie Low, Nishita Parnandi, Aurora I. Idilli, Ersa Gjelaj, Fernanda T. Subtil, Sandra Segura-Bayona, James I. MacRae, Simon J. Boulton.
Presenter affiliation: The Francis Crick Institute, London, United Kingdom. 67

SESSION 3 SELENIUM BIOLOGY AND OXIDATIVE DAMAGE II

Chairpersons: **Boyi Gan,** University of Texas MD Anderson Cancer Center, Houston, Texas, USA
Gina DeNicola, H. Lee Moffitt Cancer Center, Tampa, Florida, USA

Metabolic regulation and therapeutic targeting of ferroptosis defense
José Pedro Friedmann Angeli. [20'+10']
Presenter affiliation: Julius-Maximilians-University Würzburg, Würzburg, Germany. 68

Ferroptotic tunneling nanotubes propagate cell death through dissemination of lipid peroxides
Weinan Yin, Mengmeng Sheng, Yanchao Xu, Yawen Meng, Chitkale Hiremath, Xinru Liu, Peihao Sun, Kaiwen Han, Ruihui Zhang, Zhaoli Sun, Denise K. Marciano, Joachim Herz, Shaojie Cui, Jin Ye. [10'+5']
Presenter affiliation: University of Texas Southwestern Medical Center, Dallas, Texas. 69

From redox stress to ferroptotic commitment—Targeting the hidden threshold in cancer
Roberto Fernández-Acosta, Ruben Van Hoyweghen, Fien Bourbon, Anna Edenhofer, Pierre Montay-Gruel, Angela Pivat-Maldonado, Behrouz Hassannia, Annemie Bogaerts, Silvia von Karstedt, Wim Vanden Berghe, Tom Vanden Berghe. [10'+5']
Presenter affiliation: University of Antwerp, Antwerp, Belgium. 70

ER-mitochondria contact sites mediate ferroptosis signaling
Qing Zhong. [20'+10']
Presenter affiliation: Shanghai Jiaotong University School of Medicine, Shanghai, China. 71

SESSION 4 IRON BIOLOGY

Chairpersons: **Jin Ye,** University of Texas Southwestern Medical Center, Dallas, Texas, USA
F. Gisou van der Goot, École Polytechnique Fédérale de Lausanne (EPFL), Lausanne, Switzerland

Chemical control of cell adaptation
Raphaël Rodriguez. [20'+10']
Presenter affiliation: Institut Curie, CNRS, INSERM, PSL Research University, Paris, France. 72

Revisiting ferroptosis from the perspective of iron toxicity
Kazuhiro Iwai. [20'+10']
Presenter affiliation: Kyoto University, Kyoto, Japan. 73

Break

Convergent regulation of HRI by iron/heme fluctuations and mitochondrial stress
Shiori Sekine. [20'+10']
Presenter affiliation: Kyoto University, Kyoto, Japan. 74

A non-canonical FeS cluster coordination enables ferroptosis sensing
Leonie Thewes, Svenja M. Lorenz, Yana Bodnar, Tom Ole Bach, Manuel Etzkorn, Gereon Poschmann, Christopher Horst Lillig, Marcus Conrad, Carsten Berndt. [10'+5']
Presenter affiliation: Heinrich-Heine University, Duesseldorf, Germany. 75

Mitochondria–ER contacts as a hub for heme-derived iron supply to mitochondria
Hijiri Oshio, Isshin Shiiba, Shigeru Yanagi. [10'+5']
Presenter affiliation: Kyoto University, Kyoto, Japan; Gakushuin University, Tokyo, Japan. 76

Iron metabolism shapes cancer cell plasticity and creates an intrinsic metabolic liability
Fabien Segui, Jérôme Durivault, Valérie Vial, Marina Pagnuzzi, Jacques Pouyssegur, Doria Filipponi, Vincent Picco, Milica Vucetic. [10'+5']
Presenter affiliation: Centre Scientifique de Monaco, Monaco. 77

MONDAY, November 16—9:00 PM

Social Time with Refreshments

TUESDAY, November 17—9:00 AM

SESSION 5 LIPID METABOLISM

Chairpersons: **Milica Vucetic,** Centre Scientifique de Monaco, Monaco
Shiori Sekine, Kyoto University, Kyoto, Japan

Lipid homeostasis and ferroptosis defenses
James A. Olzmann. [20'+10']
Presenter affiliation: University of California, Berkeley, Berkeley, California. 78

Lipid metabolism in ferroptosis
Xuejun Jiang. [20'+10']
Presenter affiliation: Memorial Sloan Kettering Cancer Center, New York, New York. 79

p53-mediated tumor suppression acts through the noncanonical ferroptosis pathway
Wei Gu. [10'+5']
Presenter affiliation: Columbia University Medical Center, New York, New York. 80

Break

Lipid-dependent execution of non-apoptotic cell death
Scott J. Dixon. [20'+10']
Presenter affiliation: Stanford University, Stanford, California. 81

Dietary and pharmacologic synergy for ferroptosis induction in lymphomas—Ferroptosis-promoting diet combined with a novel GPX4 inhibitor
Tal Hirschhorn, Vasiliki Polychronidou, Eman R. Ahmed, Jiewen Zheng, Jenny Jin, Heather Seid, Anjali Saqi, Mahsa Yavari, Yulia Y. Tyurina, Valerian E. Kagen, Jessalyn Ubellacker, Brent R. Stockwell. [10'+5']
Presenter affiliation: Columbia University, New York, New York. 82

SHIELD/HSD17B11 defines a conserved lipid droplet-centered peroxidation surveillance system
Jinhua Li, Min Liu, Xinran Gu, Yanzhe Pan, Alan Jian Zhu. [10'+5']
Presenter affiliation: Peking University, Beijing, China. 83

TEAD4 regulates ferroptosis sensitivity through lipid metabolism under hypoxia
Yung-Hsin Cheng, Chia-Lin Chen. [10'+5']
Presenter affiliation: National Yang Ming Chiao Tung University, Taipei, Taiwan. 84

TUESDAY, November 17—1:00 PM

Excursion

TUESDAY, November 17—7:00 PM

SESSION 6 METABOLISM

Chairpersons: **Wei Gu,** Columbia University Medical Center, New York, New York, USA
Camilla Ullmann, University of Bern, Bern, Switzerland

Ferroptosis mechanisms and therapeutic opportunities—Role of organelles
Brent R. Stockwell. [20'+10']
Presenter affiliation: Columbia University, New York, New York. 85

Metabolic and neural regulation of immunity and cancer
Tak W. Mak. [20'+10']
Presenter affiliation: Princess Margaret Cancer Centre, Toronto, Canada; Centre of Oncology and Immunology, Hong Kong, China. 86

Systemic metabolism regulates T cell ferroptosis and immunity
Zhian Chen, Naiqi Wang, Yin Yao, Di Yu. [10'+5']
Presenter affiliation: The University of Queensland, Brisbane, Australia. 87

Ferroptosis and the metastatic microenvironment
Jessalyn M. Ubellacker. [20'+10']
Presenter affiliation: Harvard T.H. Chan School of Public Health, Boston, Massachusetts. 88

POSTER SESSION II
With Refreshments

Natural terpenoid screening identifies ferroptosis-suppressive compounds
Taiki Maejima, Junya Ito, Hana Kumagai, Momofuku Yasuda, Zixian Xu, Hiroki Taguchi, Sho Kobayashi, Yusuke Hirata, Eikan Mishima, Kiyotaka Nakagawa.
Presenter affiliation: Tohoku University, Sendai, Japan. 89

Targeting LDHB induces mitochondrial dysfunction and mtDNA release to enhance cancer immunotherapy
Haibin Deang, Huixiang Ge, Yan Fu, Fatlind Malsiu, Yantang Lin, Yanyun Gao, Gang Xiao, Fabienne E. Birrer, Tess Brodie, Tural Yarahmadov, Deborah Stroka, Tereza Losmanova, Michaela Medova, Ping-Chih Ho, Renwang Peng, Rongrong Zhou, Patrick Dorn, Thomas M. Marti.
Presenter affiliation: University of Bern, Bern, Switzerland. 90

Impact of selenium on redox-sensitive forms of cell death
Eikan Mishima, Deng Chen, Jiashuo Zheng, Marcus Conrad.
Presenter affiliation: Tohoku University Graduate School of Medicine, Sendai, Japan. 91

Xenoferroptosis, a double-hit challenge for regulated cell death
Teresa Mitchell-Garcia, Maria J. Caiado, Qiwen Tang, Leshan Zhang, Carolina Sagarminaga Cañadas, Hong Yan, Nad'a Majerníková, Wilfred den Dunnen, Martina Schmidt, Amalia M. Dolga.
Presenter affiliation: Faculty of Science and Engineering, Groningen Research Institute of Pharmacy (GRIP), Groningen, the Netherlands. 92

Rosindol—A fluorogen for the quantitative measurement of reactive oxygen species in living cells
Andrew W. Monnone, Molly M. Nicknish, Juan J. Jaramillo Montezco, Christine Sanganoo, Nalin Aggarwal, Arista Luong, Scott E. Schaus, Mark W. Grinstaff.
Presenter affiliation: Boston University, Boston, Massachusetts. 93

Phellodendron amurense rupr. extract suppresses ferroptosis via the lipophilic antioxidant activity of berberine
Yasushi Mori, Chikako Yokoyama, Kiharu Igarashi, Hideyo Sato, Naomi Abe-Kanoh, Sho Kobayashi.
Presenter affiliation: Iwate University, Morioka, Japan. 94

Labile iron heterogeneity shapes ferroptosis-associated tissue states in liver disease
Toshiro Moroishi.
Presenter affiliation: Institute of Science Tokyo, Tokyo, Japan. 95

Early plasma membrane lesions can precede ferroptotic death by hours and predict cell fate
Juliana Hüther, Regina Miller, Chengzhe Tian, Markus Rehm.
Presenter affiliation: University of Stuttgart, Stuttgart, Germany. 96

Evaluating the role of cellular NAD+/NADH in ferroptosis
Muhammad Bin Munim, Matthew Vander Heiden.
Presenter affiliation: Massachusetts Institute of Technology, Cambridge, Massachusetts; Koch Institute, Cambridge, Massachusetts. 97

Forward genetics screen in *Caenorhabditis elegans* reveals novel ferroptosis regulators
Chong Yi Ng, Nicole L. Jenkins, Daniel J. Park, Ashley I. Bush, Gawain McColl.
Presenter affiliation: Florey Institute of Neuroscience, Melbourne, Australia. 98

Two leucine residues contribute to the human NRF2 doublet pattern on SDS-PAGE
Hoang Hai Ngo, Dang Quynh Le, Ba Nam Le, Panna Boglarka Lukacs, Jeong-Eun Lee, Young-Sam Keum.
Presenter affiliation: Dongguk University, Goyang-si, South Korea. 99

Processing bodies coordinate glutamine allocation between protein translation and glutathione synthesis in Alzheimer's disease
Thomas Nguyen, Francesca Alves, Darius Lane, Scott Ayton.
Presenter affiliation: The Florey Institute, Melbourne, Australia. 100

NRF2 transcriptional heterogeneity defines distinct redox and immune states in ovarian clear cell carcinoma
Ryunosuke Noda, Shigeki Hirabayashi, Yuichiro Semba, Kiyoko Setoguchi, Kohta Miyawaki, Takuya Morikawa, Yumiko Noguchi, Kiyoko Kato, Takahiro Maeda.
Presenter affiliation: Kyushu University, Fukuoka, Japan. 101

NADPH oxidases mediated ROS signalling in ferroptosis propagation
Safoura Nour Ebad, Maria Fedorova.
Presenter affiliation: University Hospital and Faculty of Medicine Carl Gustav Carus of TU Dresden, Dresden, Germany. 102

Investigation of the mechanism of ferroptosis in melanoma
Dorottya M.P. Pál, Alexandra I.T. Lakatos, Botond L. Szabolcs, MD, Benedek Nagy, MD, Anna A. Ascsillán, Katalin Buday, PhD, Lajos V. Kemény, MD, PhD.
Presenter affiliation: Semmelweis University, Budapest, Hungary. 103

Tumor suppressor par-4 triggers oxeiptotic cell death in cancer cells
Siraj Pallichankandy, Anees Rahman Cheratta, Faisal Thayyullathil, Karthikeyan Subburayan, Ameer Alakkal, Asma Alnuaimi, Sehamuddin Galadari.
Presenter affiliation: New York University Abu Dhabi, Abu Dhabi, United Arab Emirates. 104

Transcriptomic analysis reveals metabolic remodeling underlying early adaptation of azole-resistant *Candida tropicalis* during gastrointestinal persistence under antifungal selection
Chien-Hsiung Pan.
Presenter affiliation: National Health Research Institutes, Miaoli County, Taiwan. 105

The iron–ROS axis mediates bidirectional crosstalk between ferroptosis and NLRP3 inflammasome activation in $PM_{2.5}$-exposed macrophages
Minkyung Park, Seon-Jin Lee.
Presenter affiliation: University of Science and Technology (UST), Daejeon, South Korea; Korea Research Institute of Bioscience & BioTechnology (KRIBB), Daejeon, South Korea. 106

ATG7-dependent autophagy suppresses ROS accumulation during melanocyte senescence
Tae Jun Park, Soon Sang Park, Hee Young Kang, Hong Seok Kim.
Presenter affiliation: Ajou University, Suwon, South Korea. 107

Mapping early functional proteome dynamics of ferroptosis by time-resolved pathway-CETSA
Anderson Daniel Ramos, Marc-Antoine Gerault, Radosveta Gencheva, Tatiana Cañeque-Cobo, Raphaël Rodriguez, Elias Arnér, Pär Nordlund, Sara Lööf.
Presenter affiliation: Karolinska Institutet, Stockholm, Sweden. 108

Ceruloplasmin deficiency alters age related macular degeneration-associated gene expression in human iPSC-derived 3D retinal organoids
Qiang Li, Rajesh C. Rao.
Presenter affiliation: University of Michigan, Ann Arbor, Michigan. 109

Trogocytic clearance of ferroptotic cells by macrophages
Leslie J. Revatta, Jyotirekha Das, Michael Overholtzer.
Presenter affiliation: Sloan Kettering Institute for Cancer Research, NYC, New York; Stevens Institute of Technology, Hoboken, New Jersey. 110

Investigating the role of mitochondrial complex i in the mechanism of ferroptosis inducing phospholipid di-docosahexaenoic phosphatidylcholine
Megan R. Rodriguez, Brent Stockwell.
Presenter affiliation: Columbia University, New York City, New York; Columbia University Medical Center, New York City, New York. 111

Metabolic determinants of ferroptosis resistance in lymph in cancer metastasis
Marie Sabatier, Guillaume Cognet, Megan Cheah, Alanis Carmona, Samir Mitri, Yanshan Liang, Laura Martin Manfroi, Milena Chaufan, Sheng Hui, Hardik Shah, Ted A. James, Alexander Muir, Jessalyn M. Ubellacker.
Presenter affiliation: Harvard T.H. Chan School of Public Health, Boston, Massachusetts; Ludwig Center at Harvard, Boston, Massachusetts. 112

Investigating anti-ferroptotic ability of organelle-targeted ferroptosis inhibitors
Shubham Sahu, Jikesh Bhoi, Thimmaiah Govindaraju.
Presenter affiliation: Jawaharlal Nehru Centre for Advanced Scientific Research (JNCASR), Bengaluru, India. 113

A theranostic strategy for reprogramming ferroptosis and visualization of concurrent lipid droplet remodelling in neurodegeneration
Shreyasri Sain, Suresh Rajamanickam, Madhu Ramesh, Jikesh Bhoi, Milind Kumar Anand.
Presenter affiliation: Jawaharlal Nehru Centre for Advanced Scientific Research (JNCASR), Bengaluru, Karnataka, India. 114

Lipid degraders to target drug-tolerant persister cancer cells
Romain Sastourne-Haletou, Tatiana Cañeque, Ludovic Colombeau, Sebastian Müller, Christine Gaillet, Raphaël Rodriguez.
Presenter affiliation: Institut Curie, CNRS, INSERM, PSL Research University, Paris, France. 115

Preclinical drug repurposing for the identification of ferroptosis-inducing compounds
Mami Sato, Haowen Liu, Shibo Sun, Ancély Ferreira dos Santos, Ina Rothenaigner, Lissy Gross, Mostafa Ejtehadifar, Kamyar Hadian, Hamed Alborzinia, Lydia Meder, Simone Brabletz, Raquel Blazquez, José Pedro Friedmann Angeli.
Presenter affiliation: Rudolf Virchow Zentrum (RVZ), Center for Integrative and Translational Bioimaging, University of Würzburg, Würzburg, Germany. 116

Deletion of ferritin heavy chain limits tumor growth and promotes iron-dependent stress in medulloblastoma
Fabien Segui, Jérôme Durivault, Valérie Vial, Marina Pagnuzzi, Jacques Pouyssegur, Vincent Picco, Milica Vucetic.
Presenter affiliation: Centre Scientifique de Monaco, Monaco. 117

The STEAP1–STEAP2 complex links iron metabolism and coenzyme Q biosyntesis to Ewing sarcoma aggressiveness
Taras Shyp, Gian Luca Negri, Hai-Feng Zhang, Michael Lizardo, Christopher Hughes, Sebastian Muller, Raphael Rodriguez, Rouhollah Mousavizadeh, Poul Sorensen.
Presenter affiliation: University of British Columbia, Vancouver, Canada; BC Cancer Research Center, Vancouver, Canada. 118

Heme stabilization triggers a ferritin-dependent adaptive response that suppresses ferroptosis
Izadora Souza, Izabela Amélia Marques Andrade, Florencio Porto de Freitas, José Pedro Friedmann Angeli, Clarissa Ribeiro Reily Rocha.
Presenter affiliation: Federal University of São Paulo (UNIFESP), Sao Paulo, Brazil; University of Würzburg, Würzburg, Germany. 119

Combined targeting of the proteasome and GPX4 eradicates cancer cells otherwise evading apoptosis and ferroptosis
Daniela Stöhr, Kaiwen Wang, Hanna Wippenbeck, Anna Reisch, Nathalie Peters, Attila Teleki, Ralf Takors, Markus Rehm.
Presenter affiliation: University of Stuttgart, Stuttgart, Germany. 120

Profiling of inflammation and cell death in critically ill patients
Tom Stroobants, Cyril Willemart, Symen Ligthart, Philippe G. Jorens, Tom Vanden Berghe.
Presenter affiliation: Antwerp University Hospital, Edegem, Belgium; University of Antwerp, Antwerp, Belgium. 121

Tumor suppressor par-4 drives ferroptosis through the MAPK signaling network in glioblastoma
Karthikeyan Subburayan, Sehamuddin Galadari, Faisal Thayyullathil, Siraj Pallichankandy, Anees Rahman Cheratta, Ameer Alakkal, Asma Al. Nuaimi.
Presenter affiliation: New York University Abu Dhabi (NYUAD), Saadiyat Island, Abu Dhabi, United Arab Emirates. 122

Balancing CD8+ T cell antitumor fitness and ferroptosis via membrane lipid dynamics
Masaki Tajima, Sidonia Fagarasan.
Presenter affiliation: Kyoto University, Kyoto, Japan. 123

Disruption of selenium metabolism by arsenite and its contribution to ferroptosis susceptibility
Hayato Takashima, Reiko Makino, Hiroki Taguchi, Junya Ito, Eikan Mishima, Takashi Toyama, Yoshiro Saito.
Presenter affiliation: Tohoku University, Sendai, Japan. 124

Triaptosis—Oxidative cell death and endocytosis for therapy of incurable cancer
Alexis Wilson, Sophia S. Long, Manojit Mosur Swamynathan, Shan Kuang, Grace Q. Gong, Roger L. Williams, Paolo Cifani, Lloyd C. Trotman.
Presenter affiliation: Cold Spring Harbor Laboratory, Cold Spring Harbor, New York. 125

JNK/c-JUN–induced SOX4 regulates ferroptosis-associated signaling and vinorelbine response in breast cancer
Chia Lung Tsai, Chi Neu Tsai.
Presenter affiliation: Chang Gung Memorial Hospital, Taoyuan, Taiwan. 126

Age-associated myeloid cell susceptibility to glutathione peroxidase 4-dependent ferroptosis exacerbates injury after hemorrhagic stroke
Clint M. Upchurch, Josh D. Samuels, Collin J. Dube, Gabrielle Riddlemoser, Aman Mangalmurti, Jessica M. Thanos, John R. Lukens.
Presenter affiliation: University of Virginia, Charlottesville, Virginia; Harrison Family Translational Research Center, Virginia, Charlottesville, Virginia. 127

Unraveling novel ferroptosis regulators and therapeutic strategies for acute kidney injury
Ruben Van Hoyweghen, Wulf Tonnus, Geraldine Veeckmans, Andreas Linkermann, Anja Verhulst, Tom Vanden Berghe.
Presenter affiliation: University of Antwerp, Antwerp, Belgium. 128

Investigating Fsp1-dependent synthetic lethalities in vivo
Alec J. Vaughan, Stefan Kotschi, Thales Papagiannakopoulos.
Presenter affiliation: NYU Langone Grossman School of Medicine, New York, New York; Salk Institute for Biological Sciences, San Diego, California. 129

Ferroptosis inhibition enhances liver and lung graft function
Geraldine Veeckmans, Lene Devos, Nicholas Gilbo, Dieter Van Beersel, Camilla Scarpellini, Joris Blondeel, Magali Walravens, Greta Klejborowska, Caroline Lanthier, Michele Wölk, Sebastian Müller, Christine Gaillet, Ludovic Colombeau, Behrouz Hassannia, Matthias Längin, Martin Bender, Jan-Michael Abicht, Bruno Reichart, Hans De Winter, Maria Fedorova, Raphaël Rodriguez, Jacques Pirenne, Laurens J. Ceulemans, Ina Jochmans, Koen Augustyns, Diethard Monbaliu, Arne Neyrinck, Tom Vanden Berghe.
Presenter affiliation: UAntwerp, Antwerp, Belgium. 130

The impact of cells microenvironment on ferroptosis sensitivity and metabolic remodeling
Andrea Venturi, Maria Fedorova.
Presenter affiliation: Center of Membrane Biochemistry and Lipid Research, Dresden, Germany. 131

Localized hydrogen peroxide challenges to dissect cell fate in neurodegenerative and neuroinflammatory processes
Perrine Vermonden, Jiashuo Zheng, Weijia Zhang, Maceler Aldrovandi, Bettina Proneth, Eikan Mishima, Vsevolod V. Belousov, Marcus Conrad.
Presenter affiliation: Helmholtz Munich, Neuherberg, Germany. 132

MiR-940 suppresses ferroptosis by controlling expression of key regulatory genes
Andrea Kolak, Juliane Tschuck, Stefanie A. I. Weiß, Daniel Kaemena, Karolin Klimm, Ana Galhoz, Larissa Ringelstetter, Myles Fennell, Juliane Merl-Pham, Anna Artati, Stefanie Strasser, Ralph Garippa, Michael Witting, Hans Zischka, Joel A. Schick, Stefanie M. Hauck, Michael P. Menden, Michelle Vincendeau, Brent R. Stockwell, Kamyar Hadian.
Presenter affiliation: Helmholtz Munich, Munich, Germany. 133

Oxidative lipidomics fingerprints ferroptosis-driven acute kidney and liver injury
Magali Walravens, Geraldine Veeckmans, Michele Wölk, Cyril Willemart, Zhixu Ni, Maria Fedorova, Tom Vanden Berghe.
Presenter affiliation: University of Antwerp, Antwerpen, Belgium. 134

The PKM2-GSH-SLC7A11 axis couples cancer metabolism to ferroptosis vulnerability
Wen-Ching Wang, Tsan-Jan Chen, Yasushi Hiraoka, Hsing-Jien Kung, Muh-Hwa Yang.
Presenter affiliation: National Tsing Hua University, Hsinchu, Taiwan. 135

A unique cell death mediated by cyclo-octasulfur
Yujue Wang, Keito Okazaki, Takaaki Akaike, Hozumi Motohashi.
Presenter affiliation: Tohoku University, Sendai, Japan. 136

Epigenetic fingerprinting of ferroptosis—Towards cell-free DNA biomarkers for acute organ failure
Cyril Willemart, Mojca Strazisar, Philippe Jorens, Gerben Menschaert, Tom Vanden Berghe.
Presenter affiliation: University of Antwerp, Antwerp, Belgium. 137

Lipid droplets in ferroptotic cancer cells impair anti-tumour response
Laura Wyckaert, Olivia Van der Sypt, Peter Vandenabeele.
Presenter affiliation: VIB-UGent Center for Inflammation Research, Ghent, Belgium. 138

A versatile toolbox of xCT antibodies
Chenxi Xu, Jiashuo Zheng, Marcus Conrad.
Presenter affiliation: Institute of Metabolism and Cell Death, Molecular Targets and Therapeutics Center, Helmholtz Munich, Munich, Germany. 139

Therapeutic targeting of selenoprotein-mediated antioxidant pathways in acute myeloid leukemia
Hiromi Yamazaki, Shota Tanaka, Yumi Aoyama, Koutarou Nishimura, Weijia Zang, Masaki Nomura, Hiromi Ito, Yui Koike, Daichi Inoue.
Presenter affiliation: The University of Osaka, Suita, Japan; IBRI, FBRI, Kobe, Japan. 140

Peptide modulation of MARCHF6-dependent proteostasis and ferroptotic sensitivity
Jihye Yang, Cheol-Sang Hwang.
Presenter affiliation: Korea University, Seoul, South Korea. 141

OFD1-mediated redox homeostasis shields KRAS-mutant PDAC from ferroptosis
Qian Yang, Qing Zhong, Zaiming Tang.
Presenter affiliation: Shanghai JiaoTong University school of medicine, Shanghai, China. 142

Cellular iron flux measurement by micro magnetic resonance relaxometry (μMRR) as a critical quality attribute of mesenchymal stromal cells
Yanmeng Yang, Meiqi Kang, Jongyoon Han, Zheng Yang.
Presenter affiliation: Singapore-MIT Alliance for Research and Technology Centre, Singapore. 143

The PNPO–PLP pathway is required for neonatal survival and cellular redox homeostasis
Agatha Yokoi, Keito Okazaki, Tomoaki Ida, Jun Yoshitake, Hiroki Sekine, Takashi Toyama, Yoshiro Saito, Takaaki Akaike, Hozumi Motohashi.
Presenter affiliation: Tohoku University, Sendai, Japan. 144

Hybrid metabolic EMT state confers ferroptosis resistance in mesenchymal breast cancer cells
Kiyotsugu Yoshikawa, Aina Tsujihana.
Presenter affiliation: Doshisha Women's College of Liberal Arts, Kyotanabe, Kyoto, Japan. 145

Mitochondria-derived H_2O_2 predisposes cells to ferroptosis
Jiashuo Zheng, Weijia Zhang, Seon Min Kim, Yvonne Wohlfarter, Maceler Aldrovandi, Eikan Mishima, Markus A. Keller, Yun Pyo Kang, Marcus Conrad.
Presenter affiliation: Helmholtz Munich, Molecular Targets and Therapeutics Center, Neuherberg, Germany. 146

Pancreatic ductal adenocarcinoma leads to anemia and cachexia through hepcidin-mediated iron sequestration
Yichi (Tony) Zhang, Cindy Pyo, Keira Zhou, Anna Barbeau, Davey Feng, Amit Roopan, Ning Liu, Eric N. Olson, Puneeth Iyengar, Catherine O'Connor, Brian Wolpin, Matthew Vander Heiden.
Presenter affiliation: Koch Institute for Integrative Cancer Research, Cambridge, Massachusetts; Massachusetts Institute of Technology, Cambridge, Massachusetts; Broad Institute of MIT and Harvard, Cambridge, Massachusetts. 147

SESSION 7 PHYSIOLOGY

Chairpersons: **Jessalyn Ubellacker,** Harvard T.H. Chan School of Public Health, Boston, Massachusetts, USA
Zhian Chen, The University of Queensland, Brisbane, Australia

Targeting ferroptosis for disease prevention
Marcus Conrad. [20'+10']
Presenter affiliation: Helmholtz Munich, Neuherberg, Germany; Technical University of Munich, Garching, Germany; Tohoku University, Sendai, Japan. 148

KIF19 drives midbrain dopaminergic neuron ferroptosis and contributes to Parkinson's disease
Wenlei Li, Minyi Ou, Yujiao Liu, Zhizhuo Wang, Zexiang Ji, Yi Zhang, Jinming Liu, Yingjie Guo, Jun Li, Qian Guan, Tingle Luo, Yanjun Li, Guo Chen, Yuejun Chen, Lei Liu, Quan Chen. [20'+10']
Presenter affiliation: Nankai University, Tianjin, China. 149

Selective elimination of senescent cells through ROS-dependent cell death
Jianghao Qian, Xiangyu Zhou, Tze Mun Loo, Akiko Takahashi. [10'+5']
Presenter affiliation: Japanese Foundation for Cancer Research, Tokyo, Japan; The University of Tokyo, Tokyo, Japan. 150

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Molecular physiology of lysosomes
Haoxing Xu. [20'+10']
Presenter affiliation: Zhejiang University, Hangzhou, China. 151

Ferroptosis intervention in vivo via chemical inducers
Yilong Zou. [20'+10']
Presenter affiliation: Westlake University, Hangzhou, China; Westlake Laboratory of Life Sciences and Biomedicine, Hangzhou, China. 152

SPONSOR TALK

Tools for ferroptosis analysis—From multiparametric detection to organelle-specific approaches
Kenshi Yoshimura, Yuki Tatenaka, Yuya Ohuchi. [20'+10']
Presenter affiliation: Dojindo Laboratories, Kanagawa, Japan. 153

SESSION 8 CANCER AND DISEASE

Chairpersons: **Akiko Takahashi,** Japanese Foundation for Cancer Research / The University of Tokyo, Tokyo, Japan
Haoxing Xu, Zhejiang University, Hangzhou, China

Ferroptosis as a context-dependent switch between cancer initiation and cancer-selective therapy
Shinya Toyokuni, Yuki Maeda, Yingyi Kong. [20'+10']
Presenter affiliation: Nagoya University Graduate School of Medicine, Nagoya, Japan; Nagoya University, Nagoya, Japan. 154

Loss of mature cardiolipin attenuates ferroptosis by disrupting VDAC-dependent mitochondrial–ER communication
Yvonne Wohlfarter, Judith Hagenbuchner, Utku Horzum, Gregor Oemer, Andreas Winter, Markus Seifert, Viktorija Juric, Luiz F. Garcia-Souza, Roman Praschberger, Hesso Farhan, Günter Weiss, Johannes Zschocke, Markus A. Keller. [10'+5']
Presenter affiliation: Institute of Human Genetics, Innsbruck, Austria. 155

Protean mechanisms of neuroprotection by the anti-ferroptotic agent adaptaquin—A target-selective inhibitor of HIF prolyl hydroxylases
Rajiv R. Ratan, Karuppagounder Saravanan, Yingxin Chen, Brandon Seo, Esty Shohami, Tanvi Handiekar, Derek Pratt. [10'+5']
Presenter affiliation: SUNY Downstate, Brooklyn, New York; Weill Cornell Medicine, New York, New York. 156

3D tumor model architecture shapes GPX4- and FSP1-mediated ferroptosis defence mechanisms
Camilla Ullmann, Philipp Kirchner, Charles Bidgood, Aurel Perren, Sadowski Martin. [10'+5']
Presenter affiliation: University of Bern, Bern, Switzerland. 157

IGF1+ fibroblasts buffer ferroptosis vulnerability in alcohol-associated esophageal squamous cell carcinoma
Yitong Pan, Zhengze Lu, Jia Wang, Shengrong Wu, Guang Lei. [10'+5']
Presenter affiliation: Central South University, Changsha, China. 158

Break

Oxysterol-sensing by liver X receptor counteracts ferroptosis via lipid remodeling
Andrea Kolak, Juliane Tschuck, Shibo Sun, Judith Sailer, Oliver Hartmann, Ina Rothenaigner, Huiyun Hu, Elizaveta Efanova, Fabien Riols, Mark Haid, Hans Zischka, Markus Diefenbacher, José Pedro Friedmann Angeli, Kamyar Hadian. [10'+5']
Presenter affiliation: Helmholtz Munich, Neuherberg, Germany. 159

A fibroblast-epithelial lipid peroxidation circuit drives ferroptosis in inflammatory bowel disease
Yuezhong Zhang, Yinzhi Ying, Grace Caris, Wesley Huang, Yatrik Shah. [10'+5']
Presenter affiliation: University of Michigan, Ann Arbor, Michigan; Central South University, Changsha, China. 160

EMT/plasticity-associated ferroptosis sensitivity and therapeutic options in cancer
Thomas Brabletz, Nino Bindel, Katharina Siebenkäs, Jimena Weibezahn, Alina Ruff, Marc Stemmler, Simone Brabletz. [10'+5']
Presenter affiliation: FAU University Erlangen-Nürnberg, Erlangen, Germany. 161

Iron and redox control of adipose tissue health
Philipp E. Scherer. [20'+10']
Presenter affiliation: Touchstone Diabetes Center, Texas; The University of Texas Southwestern Medical Center, Dallas, Texas. 162

Meeting Wrap-up

WEDNESDAY, November 18—6:00 PM

COCKTAILS and BANQUET

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WEDNESDAY, November 18—9:00 PM

Social Time with Refreshments

THURSDAY, November 19

Departure