

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

Sunday, November 3 – Friday, November 8, 2024

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Sunday	7:00 pm	<b>1</b> Introduction to Ferroptosis, Iron, and ROS Biology
Monday	9:00 am	<b>2</b> Lipid Peroxidation and Chemistry
Monday	2:00 pm	<b>Poster Session</b>
Monday	3:00 pm	<i>Chinese Tea and Beer Tasting</i>
Monday	4:00 pm	<b>Meet the Editor(s)</b>
Monday	7:00 pm	<b>3</b> Iron and Ferroptosis
Tuesday	9:00 am	<b>4</b> Cellular Mechanisms of Ferroptosis
Tuesday	1:30 pm	<i>Visit to Old Suzhou*</i>
Tuesday	7:00 pm	<b>5</b> Degeneration, Disease and Ferroptosis
Wednesday	9:00 am	<b>6</b> Ferroptosis and Cancer / Disease
Wednesday	2:00 pm	<b>7</b> Ferroptosis Mechanisms
Wednesday	7:00 pm	<b>8</b> Cell Mechanisms and Disease
Thursday	9:00 am	<b>9</b> Redox Mechanisms and Iron
Thursday	2:00 pm	<b>10</b> Non-mammalian Species and Mechanisms
Thursday	5:00 pm	<i>Cocktails and Banquet</i>
Friday		<i>Departure</i>

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Oral presentation sessions are located in the CSHA Auditorium

Poster session and Chinese Tea & Beer Tasting are in the Lake Front Hall.

Cocktail social hour is held outside in the Suz Garden.

Old Suzhou visits depart from the CSHA lobby

*\*optional tour requires additional fee.*

Meal locations and times are as follows:

Lunch: Main Cafeteria 12:00pm - 1:30pm

Dinner: Main Cafeteria 6:00pm - 7:30pm

Banquet: Suz Garden 6:00pm

More information will be available at CSHA office.

*(Map at the end of this abstract book)*

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## PROGRAM

SUNDAY, November 3—7:00 PM

### Overview by Meeting Organizers

#### **SESSION 1** INTRODUCTION TO FERROPTOSIS, IRON AND ROS BIOLOGY

**Chairpersons:** **Marcus Conrad**, Helmholtz Zentrum München, Munich, Germany  
**Hozumi Motohashi**, Tohoku University, Sendai, Japan

### KEYNOTE SPEAKER

#### **To be or not to be, a dilemma of cellular metabolism in ferroptosis**

Xuejun Jiang [35'+10']

Presenter affiliation: Memorial Sloan-Kettering Cancer Center, New York, New York.

1

#### **The role of iron in methionine redox signaling**

Christine Chio [20'+10']

Presenter affiliation: Columbia University, New York, New York.

2

#### **A lipid atlas of human and mouse immune cells provides insights into ferroptosis susceptibility—Application in adoptive cell therapy**

Pooranee K. Morgan, Gerard Pernes, Kevin Huynh, Natalie A. Mellet, Peter J. Meikle, Graeme I. Lancaster, Andrew J. Murphy [10'+5']

Presenter affiliation: Baker Heart and Diabetes Institute, Melbourne, Australia.

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#### **Dietary pro-oxidant therapies by a vitamin K precursor target PI 3-Kinase VPS34 function**

Manojit M. Swamynathan, Shan Kuang, Kaitlin E. Watrud, Mary R. Doherty, Charlotte Gineste, Grinu Mathew, Grace Q. Gong, Christopher R. Vakoc, Navdeep S. Chandel, Tobias Janowitz, James B. Hicks, Michael J. Wigler, Darryl J. Pappin, Roger L. Williams, Paolo Cifani, David A. Tuveson, Jocelyn Laporte, Lloyd C. Trotman [10'+5']

Presenter affiliation: Cold Spring Harbor Laboratory, Cold Spring Harbor, New York.

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MONDAY, November 4—9:00 AM

**SESSION 2**      **LIPID PEROXIDATION AND CHEMISTRY**

**Chairpersons:** **Brent Stockwell**, Columbia University, New York, New York, USA  
**Hülya Bayir**, Columbia University, New York, New York, USA

**No HAT required! Unusual radical-trapping antioxidant mechanisms provide new strategies to suppress ferroptosis**

Derek A. Pratt [20'+10']

Presenter affiliation: University of Ottawa, Ottawa, Canada.

5

**Lipidome response at the crossroad between survival and ferroptotic cell death**

Michele Wölk, Maria Fedorova [20'+10']

Presenter affiliation: Faculty of Medicine Carl Gustav Carus of TU Dresden, Dresden, Germany.

6

**Selenocysteine metabolism is a targetable vulnerability in cancers**

Kamini Kaushal, Zhiyi Chen, Umut Yildiz, Florencio Porto Freitas, Ancély Ferreira Dos Santos, José Pedro Friedmann Angeli, Hamed Alborzinia [10'+5']

Presenter affiliation: Heidelberg Institute for Stem Cell Technology and Experimental Medicine (HI-STEM GmbH), Heidelberg, Germany; German Cancer Research Center (DKFZ), Heidelberg, Germany.

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**Break**

**PNPO-PLP axis for a novel oxygen sensing mechanism**

Hozumi Motohashi [20'+10']

Presenter affiliation: Tohoku University Graduate School of Medicine, Sendai, Japan.

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**A new role of PUFA-plasmalogens in enzymatically-initiated ferroptosis.**

Valerian E. Kagan, Hülya Bayir [20'+10']

Presenter affiliation: University of Pittsburgh, Pittsburgh, Pennsylvania.

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**Targeting lipid scrambling potentiates ferroptosis and triggers tumor immune rejection**

Mengyun Yang, Ze Yu, Ning Wu [10'+5']

Presenter affiliation: Huazhong University of Science and Technology, Wuhan, China; Anhui Medical University, Hefei, China.

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MONDAY, November 4—2:00 PM

**POSTER SESSION**

**Optimisation of lipid ROS measurement for spectral flow cytometry**

Daniel A. Butcher, Naiqi Wang, Sam Nettelfield, Di Yu

Presenter affiliation: The University of Queensland, Woolloongabba, Australia.

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**Iron(ing) out parkinsonisms—Exploring ferroptosis in Parkinson's disease and related tauopathies**

Maria Caiado, Mark Trivanovic, Anneke Miedema, Monique Lodewijk, Mirjam Mastik, Tineke van der Sluis, Amalia Dolga, Wilfred den Dunnen

Presenter affiliation: UMCG, Groningen, the Netherlands; RUG, Groningen, the Netherlands.

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**Fatty acid desaturase 2 drives ferroptosis via production of PUFA-containing plasmalogens from linoleic acid in renal cancer**

Adriano B. Chaves-Filho, Alina M. Winkelkotte, Felix C. Vogel, Johanna R. Richter, Carolina D. Caballero, Lisa Schlicker, Ioanna Koltsaki, Marteinn T. Snaebjörnsson, Marcos Y. Yoshinaga, Sayuri Miyamoto, Almut Schulze

Presenter affiliation: German Cancer Research Center (DKFZ), Heidelberg, Germany; University of São Paulo, Sao Paulo, Brazil.

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**Targeting ferroptosis to overcome the therapeutic resistance in prostate cancers**

Chia-Lin Chen, Sheng-Chieh Hsu, Ming-Han Kuo, Cheng-Ying Chu, Ching-Yu Lin, Hsing-Jien Kung

Presenter affiliation: National Yang Ming Chiao Tung University, Taipei, Taiwan, China.

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- Small molecule MIF modulation enhances ferroptosis by impairing DNA repair mechanisms**  
Deng Chen, Frank Dekker  
 Presenter affiliation: University of Groningen, Groningen, the Netherlands; Helmholtz Munich, Munich, Germany. 15
- BRD4 modulates ferroptosis in castration-resistant prostate cancer through TEAD4 and HIF-1 $\alpha$  interaction under hypoxia**  
Yung-Hsin Cheng, Cheng-Ming Chiang, Chia-Lin Chen  
 Presenter affiliation: National Yang Ming Chiao Tung University, Taipei, Taiwan, China. 16
- Wolfberry glycopeptides attenuate dopaminergic neurons loss by inhibiting lipid peroxidation in Parkinson's disease**  
 Xiao-Min Lin, Xin Xiao, Ya-Si Zheng, Ya-Ting Cheng, Wen-Jun Duan, Rong-Rong He  
 Presenter affiliation: Jinan University, Guangzhou, China. 17
- Lipid peroxidation regulates muscle atrophy induced by diabetes**  
Hiroaki Eshima  
 Presenter affiliation: Nagasaki International University, Sasebo, Japan. 18
- Molecular mechanism study of gene expression and ferroptosis regulated by tumor suppressor gene *BAP1***  
Kexin Fan, Shuting Zhou, Jingwen Xiong, Yakun Ren, Yuhan Chen, Min Gao, Yilei Zhang  
 Presenter affiliation: Xi'an Jiaotong University, Xi'an, Shaanxi, China. 19
- The mechanism by which CNPY2 regulates renal tubular epithelial cell ferroptosis in diabetic nephropathy through MAM**  
Qi Feng, Jingfang Chen, Shaokang Pan, Dongwei Liu, Zhangsuo Liu  
 Presenter affiliation: The First Affiliated Hospital of Zhengzhou University, Zhengzhou, China. 20
- Innate immune training protects myeloid progenitor cells against ferroptosis**  
 Yangsong Xu, Mankit S. Lee, Camilla Bertuzzo Veiga, Dragana Dragoljevic, Andrew J. Murphy, Andrew J. Fleetwood  
 Presenter affiliation: Baker Heart and Diabetes Institute, Melbourne, Australia. 21

**Intercellular interactions dictate ALL sensitivity to ferroptosis and reveal a novel therapeutic opportunity for minimal residual disease**

Nikolai Gajic, Rhona Christie, Shirley Lam, Tobias Ackermann, Karen Dunn, Engy Shockry, Jonathan Josephs-Spaulding, Saverio Tardito, Stephen Tait, Christina Halsey

Presenter affiliation: University of Glasgow, Glasgow, United Kingdom; Cancer Research UK Scotland Institute, Glasgow, United Kingdom.

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**Phospholipid composition drives ferroptosis sensitivity in multiple myeloma**

Ali F. Habib, Rachel L. Mynott, Charlotte Toomes, Giles Best, Craig T. Wallington-Gates

Presenter affiliation: Flinders University, Bedford Park, Australia.

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**Investigation of the role of lipid metabolism in ferroptosis sensitivity during pancreatic cancer progression**

Julie Haenlin, Felix C. Vogel, Adriano B. Chaves-Filho, Alina M. Winkelkotte, Marija Trajkovic-Arsic, Jens Siveke, Almut Schulze

Presenter affiliation: German Cancer Research Center (DKFZ), Heidelberg, Germany.

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**Conjugated fatty acids target mitochondria and promote ferroptosis by chaperone-mediated autophagic degradation of GPX4**

Yusuke Hirata, Takuya Noguchi, Atsushi Matsuzawa

Presenter affiliation: Tohoku University, Graduate School of Pharmaceutical Sciences, Sendai, Japan.

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**ATF3 deficiency alleviates the ferroptosis induced by HMOX-1 during the progression of aortic dissection**

Chengkai Hu, Yuchong Zhang, Lixin Wang

Presenter affiliation: Zhongshan Hospital of Fudan University, Shanghai, China.

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**Pro-apoptotic BH3 mimetics possess previously unidentified antioxidant capabilities, which enable them to protect against ferroptosis**

Juliana Hüther, Yun Qiu, Daniela Stöhr, Bianca Wank, Sabine Laschat, Marcus Conrad, Markus Rehm

Presenter affiliation: Institute of Cell Biology and Immunology, Stuttgart, Germany.

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<b>A tangible method to assess native ferroptosis suppressor activity</b> <u>Junya Ito</u> , Toshitaka Nakamura, André Santos Dias Mourão, Adam Wahida, Kiyotaka Nakagawa, Eikan Mishima, Marcus Conrad Presenter affiliation: Helmholtz Munich, Munich, Germany; Tohoku University, Sendai, Japan.	28
<b>Concentration-dependent erastin-induced ferroptosis and secondary pyroptosis and oncosis in C6 glioma cells</b> Xiaoting Dang, Xinran Liu, Xuejie Huan, Xixun Du, <u>Qian Jiao</u> , Hong Jiang Presenter affiliation: Qingdao University, Qingdao, China.	29
<b>The lipoprotein-associated phospholipase A2 inhibitor Darapladib sensitises cancer cells to ferroptosis by remodelling lipid metabolism</b> <u>Min Wook Kim</u> , Eun Woo Lee Presenter affiliation: Korea Research Institute of Bioscience and Biotechnology (KRIBB), Daejeon, South Korea.	30
<b>Determination of the intact redox status of Coenzyme Q10</b> Tae Ha Kim, Chi Nguyen, <u>Seon Min Kim</u> , Yun Pyo Kang Presenter affiliation: Seoul National University, Seoul, South Korea.	31
<b>Methionine metabolism links with phospholipid and glutamine metabolism to drive ferroptosis</b> <u>JongWoo Kim</u> , ByeongJun Jeong, Eun-Woo Lee Presenter affiliation: Korea Research Institute of Bioscience and Biotechnology, Daejeon, South Korea; University of Science and Technology, Daejeon, South Korea.	32
<b>Bardoxolone methyl inhibits ferroptosis through Keap1-Nrf2 pathway in renal tubular epithelial cells</b> <u>Gwanpyo Koh</u> , Soyeon Yoo, Ju Young Bae Presenter affiliation: Jeju National University College of Medicine, Jeju, South Korea.	33
<b>Ferroptotic stimuli induces plasma membrane localization of cdc42 to promote lipid peroxidation in plasma membrane</b> <u>Ji-Yoon Lee</u> , Eun-Woo Lee Presenter affiliation: Korea Research Institute of Bioscience and Biotechnology (KRIBB), Daejeon, South Korea.	34

- Regulable amino acid-induced ubiquitination links lipid peroxidation and lipid droplet-dependent antioxidant response**  
Jinhua Li, Jingyu Peng, Yansong Zhang, Min Liu, Jian A. Zhu  
 Presenter affiliation: Peking University School of Life Sciences, Beijing, China. 35
- Reciprocal regulation between ferroptosis and STING-type I interferon pathway suppresses head and neck squamous cell carcinoma growth through dendritic cell maturation**  
Mingyu Li, Shufang Jin, Hailong Ma, Xi Yang, Zhiyuan Zhang  
 Presenter affiliation: Shanghai Ninth People's Hospital, Shanghai Jiao Tong University School of Medicine, College of Stomatology, Shanghai, China; National Center for Stomatology; National Clinical Research Center for Oral Diseases, Shanghai, China; Shanghai Key Laboratory of Stomatology; Shanghai Research Institute of Stomatology, Shanghai, China. 36
- Mitigating psychological stress-induced ovarian cancer progression through a classic traditional chinese prescription via regulation of GR/BMAL1 axis**  
 Yang Liu, Wen-zhe Deng, Duan-di Xiao, Xiang Luo, Wan-yang Sun, Shu-hua Ou-yang, Hong-Li Tan, Wen-Jun Duan, Hiroshi Kurihara, Yi-Fang Li, Xu-Hui Zhang, Yan-Ping Wu, Rong-Rong He, Lei Liang  
 Presenter affiliation: Jinan University, Guangzhou, China. 37
- Novel ferroptosis inducing proteasome inhibitors**  
Gang Lin, Hao Zhang, Daqiang Li, Xiangao Huang, Selina Chen-Kiang  
 Presenter affiliation: Weill Cornell Medicine, New York, New York. 38
- ALOX15-launched PUFA-phospholipids peroxidation increases the susceptibility of ferroptosis in ischemia-induced myocardial damage**  
Xiao-Hui Ma, Rong-Rong He  
 Presenter affiliation: Xinjiang Medical University, Urumqi, China. 39
- Interplay of ferroptotic and apoptotic cell death and its modulation by BH3-mimetics**  
 Yun Qiu, Juliana A. Hüther, Bianca Wank, Antonia Rath, Rene Tykwe, Sabine Laschat, Marcus Conrad, Daniela Stöhr, Markus Morrison  
 Presenter affiliation: University of Stuttgart, Stuttgart, Germany. 40

<b>Activation of lysosomal iron triggers ferroptosis in cancer</b> Tatiana Cañeque, Leeroy Baron, <u>Sebastian Müller</u> , Alanis Carmona, Ludovic Colombeau, Antoine Versini, Stéphanie Solier, Fabien Sindikubwabo, Christophe Ginestier, Juan Lucio Iovanna, Sarah Watson, Derek Pratt, Florêncio Porto Freitas, José Pedro Friedmann Angeli, Brent Stockwell, Marcus Conrad, Jessalyn M. Ubellacker, Raphael Rodriguez Presenter affiliation: Institut Curie, Paris, France.	41
<b>Cytosol-retained secretory proteins drive ER stress and ferroptosis</b> <u>Sang-Hyeon Mun</u> , Cheol-Sang Hwang Presenter affiliation: Korea University, Seoul, South Korea.	42
<b>Critical role of phospholipid peroxidation in the hyperthermic stress-induced reactivation of HSV-1</b> <u>Jie Niu</u> , Ling-Zhi Ren, Lei Liang, Wen-Jun Duan, Yi-Fang Li, Rong- Rong He Presenter affiliation: Jinan University, Guangzhou, China.	43
<b>A potent and selective anti-glutathione peroxidase 4 nanobody as ferroptosis inducer</b> Xinyu Li, Yaru Li, Aowei Xie, Fenglin Chen, Jing Wang, Jianfeng Zhou, Ximing Xu, Zhenlin Xu, Yong Wang, <u>Xue Qiu</u> Presenter affiliation: Ocean University of China, School of Medicine and Pharmacy, Qingdao, China.	44
<b>Exploring the interplay between ferroptosis, senescence, and endometriosis</b> <u>Polona Safaric Tepes</u> , Andrew Shih, Christine Metz, Peter K. Gregersen Presenter affiliation: The Feinstein Institute for Medical Research, Manhasset, New York.	45
<b>Novel UAMC-3203 analogues with improved pharmacokinetics properties to inhibit ferroptosis for CNS application</b> <u>Camilla Scarpellini</u> , Greta Kejborowska, Caroline Lanthier, Behrouz Hassannia, Emily Van San, Geraldine Veeckmans, Tom Vanden Berghe, Koen Augustyns Presenter affiliation: University of Antwerp, Antwerp, Belgium.	46

<b>Ferroptosis, new challenges for immune cells in the tumor microenvironment?</b> <u>Anna Schwantes</u> , Bernhard Brüne, Dominik C. Fuhrmann Presenter affiliation: Goethe University Frankfurt, Frankfurt a.M., Germany.	47
<b>IRI but not cisplatin-induced acute kidney injury involves ferroptosis</b> <u>Wulf Tonnus</u> , Natalie Bethe, Mirela Tmava, Karolin Flade, Andreas Linkermann Presenter affiliation: Technische Universität Dresden University Hospital CGC, Dresden, Germany.	48
<b>Influence of iron on redox homeostasis of the yeast vacuole</b> <u>Chloé Troch</u> , Dimitris Zisimopoulos, Luis Sousa, Alexandre Deschamps, Christos Gournas, Cédric Delporte, Bruno André Presenter affiliation: Université Libre de Bruxelles (ULB), Gosselies, Belgium.	49
<b>Iron deficiency anemia exacerbates cerebral ischemia-reperfusion injury through ALOX15 mediated ferroptosis</b> <u>Qing-zhang Tuo</u> Presenter affiliation: Sichuan University, Chengdu, China.	50
<b>Ferroptosis targeting in disease—From transplantation to acute &amp; chronic organ injury</b> Geraldine Veeckmans, Lene Devos, Nicholas Gilbo, Dieter Van Beersel, Joris Blondeel, Cedric Peleman, Emily Van San, Behrouz Hassannia, Sven Franque, Koen Augustyns, Andreas Linkermann, Valarian Kagan, Hulya Bayir, Ina Jochmans, Jacques Pirenne, Diethard Monbaliu, Arne Neirinck, <u>Tom Vanden Berghe</u> Presenter affiliation: University of Antwerp, Antwerp, Belgium.	51
<b>Targeting Ferroptosis in lung ischemia-reperfusion injury</b> <u>Geraldine Veeckmans</u> , Greta Klejborowska, Caroline Lanthier, Camilla Scarpellini, Emily Van San, Behrouz Hassannia, Dieter Van Beersel, Stijn Verleden, Koen Augustyns, Arne Neyrinck, Tom Vanden Berghe Presenter affiliation: University of Antwerp, Antwerp, Belgium.	52
<b>A drug-like ferrostatin-1 analogue as a ferroptosis inhibitor and photoluminescent indicator</b> Jiangkun Yan, Luo Bao, Jing Wang, Xue Qiu, <u>Yong Wang</u> Presenter affiliation: Ocean University of China, Qingdao, China.	53

<b>Endothelial ferroptosis and fibroblast senescence in diabetic angiopathy</b> <u>Yongfang Wang</u> , Albert K. Koroma, Karmveer Singh, Karin Scharffetter-Kochanek, Pallab Maity Presenter affiliation: Ulm University, Ulm, Germany.	54
<b>Identifying ALDOA as a cancer-specific ferroptosis suppressor</b> <u>Pengqi Wang</u> , Kezhang He, Haixia Yang, Bowen Wang, Wei Zhou, Ying Zhang, Dan Wang, Tianhua Ma, Sheng Ding Presenter affiliation: Tsinghua University, Beijing, China.	55
<b>Fatty acid metabolism drives dietary effect on ferroptosis in T cells and modulates immunity</b> <u>Naqi Wang</u> , Zhian Chen, Hao Zhang, Sam Nettelfield, Daniel Butcher Presenter affiliation: The University of Queensland, Brisbane, Australia.	56
<b>PDIA3 inhibition facilitates sensitivity of IKE-induced ferroptosis and improves glioblastoma therapy</b> Xin Liu, Wei Wang, Siyuan Xin, Xinjing Liu, Hong Li, Lili Sun, Shuping Zhang, Wei Chong, Jie Zhang, Qiang Ma, <u>Yiju Wei</u> Presenter affiliation: Shandong First Medical University & Shandong Academy of Medical Science, Jinan, China.	57
<b>Hypoxia sensitizes acute myeloid leukemia cells towards ferroptosis</b> <u>Anja Wicker</u> , Dominik C. Fuhrmann, Bernhard Brüne Presenter affiliation: Goethe University Frankfurt, Frankfurt, Germany.	58
<b>Exosome-driven phospholipid peroxidation propagation mediates radiotherapy-induced cancer-related fatigue</b> Xiang Luo, Dong-Dong Li, Hui Xu, Ting Xie, Guan-Di Xiao, Qi-Jun Chen, Wan-Yang Sun, Hiroshi Kurihara, Lei Liang, Yi-Fang Li, <u>Yan-Ping Wu</u> , Rong-Rong He Presenter affiliation: Jinan University, Guangzhou, China.	59
<b>Innate immune training protects myeloid progenitor cells against ferroptosis</b> <u>Yangsong Xu</u> , Man Kit S. Lee, Ziyue Fu, Camilla B. Veiga, Dragana Dragoljevic, Andrew J. Murphy, Andrew J. Fleetwood Presenter affiliation: Baker Heart and Diabetes Institute, Melbourne, Australia.	60



<b>Ferroptosis regulation via the Ac/N-recognition domain of MARCHF6 E3 ubiquitin ligase</b> <u>Jihye Yang</u> , Sang-Yoon Kim, Cheol-Sang Hwang Presenter affiliation: Pohang University of Science and Technology (POSTECH), Pohang, South Korea.	61
<b>VSTM2 protects prostate cancer cells against ferroptosis via inhibiting VDAC1 oligomerization and maintaining mitochondria homeostasis</b> <u>Juan Yang</u> , Xiao Lu, Jing L. Hao, Lan Li, Xue N. An, Yong T. Ruan, Qi L. Huang, Xiao M. Dong, Ping Gao Presenter affiliation: Shaanxi Normal University, Xi'an, China; Xi'an Medical University, Xi'an, China.	62
<b>2-Deoxy-D-ribose promotes ferroptosis in <math>\beta</math>-cells by inhibiting the OTUB1 gene, which accelerates the disintegration of SLC7A11 through the ubiquitin-proteasome mechanism</b> <u>Soyeon Yoo</u> , Ju Young Bae, Gwanpyo Koh Presenter affiliation: Jeju National University College of Medicine, Jeju, South Korea; Jeju National University Hospital, Jeju, South Korea.	63
<b>Enhancing the chemical toolbox for ferroptosis pathology intervention</b> Tian-Xiang Wang, Jin-Pin Liu, Si-Yu Cen, Nanxuan Luo, Biwen Wan, Fang Lin, Xuan Li, Yongjun Dang, Yahui Zhao, Shenyue Nie, <u>Hai-Xin Yuan</u> Presenter affiliation: Fudan University, Shanghai, China; Chongqing Medical University, Chongqing, China.	64
<b>Chryseobacterium impairs host embryogenesis by triggering ferroptosis</b> Hui Wang, Bo Yao, <u>Jingyan Zhang</u> Presenter affiliation: Fudan University, Shanghai, China.	65
<b>Structural basis of BAX pore formation</b> <u>Ying Zhang</u> , Lu Tian, Gaoxingyu Huang, Xiaofei Ge, Fang Kong, Pengqi Wang, Yige Xu, Yigong Shi Presenter affiliation: Tsinghua University, Beijing, China.	66
<b>Blocking ferroptotic cell death of neural precursor cells increases neurogenesis and improves cognition in aging</b> <u>Zhenyu Zhang</u> , Odette Leiter, David Brici, Joshua Lowe, Tara Walker Presenter affiliation: The University of Queensland, Brisbane, Australia.	67

**Exploration of HDAC8 PROTACs for the treatment of various cancers**

Chunlong Zhao, Jianqiu Zhang, Frank Dekker

Presenter affiliation: University of Groningen, Groningen, the Netherlands.

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**CGI1746 targets  $\sigma$ 1R to modulate ferroptosis through mitochondria associated membranes**

Zili Zhang, Hong Zhou, Wenjia Gu, Youjun Wang, Jing Zhang, Qing Zhong

Presenter affiliation: Shanghai Jiao Tong University School of Medicine, Shanghai, China.

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MONDAY, November 4—3:00 PM

**Chinese Tea and Beer Tasting**

MONDAY, November 4—4:00 PM

**Meet the Editors**

MONDAY, November 4—7:00 PM

**SESSION 3      IRON AND FERROPTOSIS**

**Chairpersons:** **Fudi Wang**, Zhejiang University, Hangzhou, China  
**Donna Zhang**, University of Florida Scripps Institute, Jupiter, Florida, USA

**Traffic control—Inter-organelle iron transport in cancer cell plasticity and ferroptosis**

Francesca Rizzollo, Julie Bonnereau, Patrizia Agostinis [20'+10']

Presenter affiliation: VIB Center for Cancer Biology, Leuven, Belgium.

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**Lysosomal iron triggers ferroptosis**

Raphaël Rodriguez [20'+10']

Presenter affiliation: Institut Curie, CNRS, INSERM, PSL University, Paris, France.

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**Fluorescent probes for Fe(II) and heme—Development and applications**

Tasuku Hirayama [20'+10']

Presenter affiliation: Gifu Pharmaceutical University, Gifu, Japan.

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**Aging-associated reprogramming of iron homeostasis limits stemness and tumorigenesis in the lung**

Xueqian Zhuang, Qing Wang, Simon Joost, Alex Ferrena, Melissa Blum, Selena Ding, Klavdija Krause, Zhuxuan Li, Deyou Zheng, Emily S. Wong, Tuomas Tammela [10'+5']

Presenter affiliation: Memorial Sloan Kettering Cancer Center, New York, New York.

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TUESDAY, November 5—9:00 AM

**SESSION 4** CELLULAR MECHANISMS OF FERROPTOSIS

**Chairpersons:** **Xuejun Jiang**, Memorial Sloan-Kettering Cancer Center, New York, New York, USA  
**Jessalyn Ubellacker**, Harvard T.H. Chan School of Public Health, Boston, Massachusetts, USA

**Metabolic and neural regulation of immunity and cancer**

Tak W. Mak [20'+10']

Presenter affiliation: University of Toronto, Toronto, Canada.

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**Ferroptosis and metabolism—Mechanisms and therapeutic implications**

Brent R. Stockwell [20'+10']

Presenter affiliation: Columbia University, New York, New York.

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**Interconnected cell death pathways—Mitochondria as the central hub linking ferroptosis and apoptosis**

Daniela Stöhr, Yun Qiu, Juliana Hüther, Antonia Rath, Marcus Conrad, Markus Rehm [10'+5']

Presenter affiliation: Institute of Cell Biology and Immunology, Stuttgart, Germany; Stuttgart Research Center Systems Biology, Stuttgart, Germany.

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**Interrogating the mechanism underlying the protection of *N*-acetyl-L-cysteine from ferroptosis**

Weijia Zhang, Jiashuo Zheng, Marcus Conrad [10'+5']

Presenter affiliation: Helmholtz Zentrum München, Neuherberg, Germany.

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**Break**

**PRDX6 dictates ferroptosis sensitivity by directing cellular selenium utilization**

Eikan Mishima, Junya Ito, Toshitaka Nakamura, Toyama Takashi, Yoshiro Saito, Marcus Conrad [20'+10']

Presenter affiliation: Tohoku University, Sendai, Japan; Helmholtz Munich, Munich, Germany.

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**Dissecting NRF2's multifaceted control points in ferroptosis defense**

Donna D. Zhang [20'+10']

Presenter affiliation: The Herbert Wertheim UF Scripps Institute for Biomedical Innovation and Technology, Jupiter, Florida.

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TUESDAY, November 5—1:30 PM

**Visit to Old Suzhou**

TUESDAY, November 5—7:00 PM

**SESSION 5      DEGENERATION, DISEASE AND FERROPTOSIS**

**Chairpersons:** **Raphaël Rodriguez**, Institut Curie, Paris, France  
**Francesca Carlomagno**, Università Federico II, Napoli, Italy

**Ferroptosis as the underlying mechanism in neurodegenerative disease**

Marcus Conrad [20'+10']

Presenter affiliation: Helmholtz Zentrum Munich, Neuherberg, Germany.

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<b>Generation of anti-ferroptotic mitochondrial metabolite itaconate is dependent on Vitamin C</b> <u>Hülya Bayir</u> , Valerian E. Kagan [20'+10'] Presenter affiliation: Columbia University, New York, New York.	81
<b>Cellular lipid storage and lipotoxicity: At the intersection of lipid droplets and ferroptosis</b> <u>James A. Olzmann</u> [20'+10'] Presenter affiliation: University of California, Berkeley, Berkeley, California.	82
<b>Nano-targeted lipid remodelling to defeat high-risk neuroblastoma tumor resistance to ferroptosis.</b> <u>Ine Koeken</u> , Magali Walravens, Bianka Golba, Roberto Fernández-Acosta, Iuliana Vintea, Ali Talebi, Jonas Deshair, Johan Swinnen, Adriana Manas Nunez, Daniel Bexell, Bruno de Geest, Kaat Durinck, Frank Speleman, Behrouz Hassannia, Tom Vanden Berghe [10'+5'] Presenter affiliation: University of Antwerp, Antwerp, Belgium.	83

WEDNESDAY, November 6—9:00 AM

## **SESSION 6      FERROPTOSIS AND CANCER / DISEASE**

**Chairpersons:**    **Maria Federova**, Technische Universitat Dresden, Dresden, Germany  
                           **Scott Dixon**, Stanford University, Stanford, California, USA

<b>Understanding the complexity of p53-mediated ferroptosis in tumor suppression</b> <u>Wei Gu</u> [20'+10'] Presenter affiliation: Columbia University Medical Center, New York, New York.	84
<b>Inducing lipid oxidation in lymph nodes to inhibit cancer metastasis</b> <u>Jessalyn M. Ubellacker</u> [20'+10'] Presenter affiliation: Harvard T.H. Chan School of Public Health, Boston, Massachusetts.	85

**Overcoming resistance through lipophagy-induced ferroptosis in acute myeloid leukemia**

Claudia Bruedigam, Eunice Anne Dulatre, Carol Lee, Amy H. Porter, Elisa L. Lim, Alexander Z. Shi, Thomas Stoll, Mark P. Hodson, Steven W. Lane [10'+5']

Presenter affiliation: QIMR Berghofer Medical Research Institute, Brisbane, Australia; The University of Queensland, Brisbane, Australia. 86

**Break**

**Targeting FSP1 triggers ferroptosis in lung cancer**

Thales Papagiannakopoulos [20'+10']

Presenter affiliation: New York University Grossman School of Medicine, New York, New York. 87

**Ferroptosis mediates differentiation and tumor suppression in the skin**

Nina Kuprasertkul, Chase Chen, Clementina Mesaros, Kathryn Wellen, Brian C. Capell [10'+5']

Presenter affiliation: University of Pennsylvania Perelman School of Medicine, Philadelphia, Pennsylvania. 88

**A machine learning and drug repurposing approach to target ferroptosis in colorectal cancer stratified by sex and KRAS**

Hong Yan, Xinyi Shen, Yisha Yao, Sajid Khan, Johnson Johnson [10'+5']

Presenter affiliation: Hong Kong Baptist University, Hong Kong, China; Yale University, New Haven, Connecticut. 89

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**Comprehensive analysis of iron dynamics with fluorescent small molecules**

Ryo Seino, Masaki Murai, Yasuka Komatsu, Munetaka Ishiyama [20'+10']

Presenter affiliation: Dojindo Laboratories, Kamimashiki-gun, Japan. 90

WEDNESDAY, November 6—2:00 PM

**SESSION 7**      **FERROPTOSIS MECHANISMS**

**Chairpersons:**    **James Olzmann**, University of California, Berkeley, Berkeley, California, USA  
                      **Patrizia Agostinis**, VIB Center for Cancer Biology, Leuven, Belgium

**Truncated oxidized phospholipids mediate synchronized ferroptosis and contribute to acute kidney injury**

Quan Chen [20'+10']

Presenter affiliation: Nankai University, Tianjin, China.

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**Bile acids and vitamin A—Transcriptional control of ferroptosis**

Kamyar Hadian [20'+10']

Presenter affiliation: Helmholtz Zentrum München, Neuherberg, Germany.

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**tRNA wobble editing controls FSP1 expression and dictates ferroptosis sensitivity in lung cancer**

Ning An, Morgane Paque, Marine Leclercq, Arnaud Blomme, Pierre Close [10'+5']

Presenter affiliation: GIGA-Institute, University of Liège, Liège, Belgium.

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**Iron regulatory protein 2 contributes to antimicrobial immunity by preserving lysosomal function in macrophages**

Chen Cheng, Kuanyu Li [10'+5']

Presenter affiliation: Nanjing University, Nanjing, China.

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**Ferroptosis inhibition protects against  $\alpha$ -synuclein-related cell death—Evidence from in vitro and *C. elegans* models of Parkinson's disease**

Nada Majerníková, Maria J. Caiado, Gawain McColl, Ellen A. Nollen, Wilfred F. den Dunnen, Amalia Dolga [10'+5']

Presenter affiliation: Groningen Research Institute of Pharmacy, Groningen, the Netherlands; University Medical Center Groningen, Groningen, the Netherlands.

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**PRDX6 contributes to selenocysteine metabolism and ferroptosis resistance**

Zhiyi Chen, Alex Inague, Gholamreza Fazeli, Danny Schilling, Thamara N. Xavier da Silva, Ancely Ferreira dos Santos, Florencio Porto Freitas, Hamed Alborzinia, Sayuri Miyamoto, José Pedro Friedmann Angeli [10'+5']

Presenter affiliation: University of Wuerzburg, Wuerzburg, Germany. 96

WEDNESDAY, November 6—7:00 PM

**SESSION 8** CELL MECHANISMS AND DISEASE

**Chairpersons:** **Ping Wang**, Tongji University, Shanghai, China  
**Wei Gu**, Columbia University Medical Center, New York, New York, USA

**Sex-specific expression of estradiol derivatives, hydropersulfides and ether lipids regulates ferroptosis sensitivity of kidney tubules**

Wulf Tonnus, Francesca Maremonti, Shubhangi Gavali, Natalie Bethe, Karolin Flade, Marlena Schlecht, Florian Gembardt, Sofia Traikov, Danny Schilling, Mirela Tmava, Alexia Belavgeni, Derrek Pratt, Sider Penkov, Andrej Shevchenko, Tobias Dick, Maria Federova, Stefan R. Bornstein, Andreas Linkermann [20'+10']

Presenter affiliation: Universitätsmedizin Mannheim, Mannheim, Germany; University Hospital CGC at the Technische Universität Dresden, Dresden, Germany; Albert Einstein College of Medicine, New York, New York. 97

**Identification of hyperoxidized PRDX3 as a ferroptosis marker**

Shaojie Cui, Anchal Ghai, Yaqin Deng, Guosheng Liang, Samuel Achilefu, Jin Ye [20'+10']

Presenter affiliation: UT Southwestern Medical Center, Dallas, Texas. 98

**Mitochondria at the crossroads of metabolism and ferroptosis**

Soni Deshwal [20'+10']

Presenter affiliation: Max-Planck Institute for Biology of Ageing, Cologne, Germany. 99



**The ferroptotic lipid 4-HNE hyperactivates LRRK2 kinase in idiopathic Parkinson's disease via a 15-lipoxygenase (ALOX15) dependent pathway**

William D. Shrader, Sean A. Pintchovski, Matthew T. Keeney, Emily M. Rocha, Timothy Greenamyre, Eric Beattie, Attosa Shaltouki, Chung-Han Hsieh, Wesley Sun [10'+5']

Presenter affiliation: Acurex Biosciences, San Carlos, California. 100

**RIPK4 promotes oxidative stress and ferroptotic death through the downregulation of ACSM1**

Jing Zhang [10'+5']

Presenter affiliation: Shanghai Jiao Tong University, Shanghai, China. 101

THURSDAY, November 7—9:00 AM

**SESSION 9** REDOX MECHANISMS AND IRON

**Chairpersons:** **Andreas Linkermann**, University Hospital CGC at the Technische Universität Dresden, Dresden, Germany  
**Claudia Bruedigam**, QIMR Berghofer Medical Research Institute, Brisbane, Australia

**Kinome-wide CRISPR-cas9 screening to identify the regulators of ferroptosis**

Ping Wang [20'+10']

Presenter affiliation: Tongji University, Shanghai, China. 102

**Mucopolipidosis type IV features alteration of iron homeostasis due to altered ferritinophagy**

Giorgia Federico, Antonella Capuozzo, Alessia Tardocchi, Diego L. Medina, Francesca Carlomagno [10'+5']

Presenter affiliation: University Federico II, Napoli, Italy. 103

**A diPUFA phospholipid induces ferroptosis in regulatory T cells**

Taruna V. Neelakantan, Eduard Reznik, Hao Wei Li, Yinuo Jin, Lingting Shi, Jiewen Zheng, Mark Fongheiser, Divya Venkatesh, Elham Azizi, Megan Sykes, Weiping Zou, Taha Merghoub, Brent R. Stockwell [10'+5']

Presenter affiliation: Columbia University, New York, New York. 104

**Break**

<b>Multidimensional ferrology dictates life and death</b> <u>Fudi Wang</u> [20'+10'] Presenter affiliation: Zhejiang University School of Medicine, Hangzhou, China.	105
<b>The lipidomic fingerprint of ferroptosis in organs experiencing ischemia-reperfusion injury as a potential source of biomarkers for disease progression</b> <u>Sider Penkov, Maria Fedorova</u> [10'+5'] Presenter affiliation: TU Dresden Faculty of Medicine Carl Gustav Carus, Dresden, Germany.	106
<b>Alzheimer's BACE1 protein inhibits ferroptosis by limiting the labile iron pool</b> <u>Peng Lei</u> [10'+5'] Presenter affiliation: Sichuan University, Chengdu, China.	107

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<b>Oxidative stress and cell death in cancer</b> <u>Ying Hu</u> [20'+10'] Presenter affiliation: Harbin Institute of Technology, Harbin, China.
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THURSDAY, November 7—2:00 PM

### **SESSION 10      NON-MAMMALIAN SPECIES AND MECHANISMS**

<b>Chairpersons:</b> <b>Quan Chen</b> , College of Life Sciences, Nankai University, Tianjin, China <b>Christine Chio</b> , Columbia University, New York, New York, USA	
<b>Functions of MAMs in ferroptosis</b> <u>Qing Zhong</u> [20'+10'] Presenter affiliation: Shanghai Jiaotong University School of Medicine, Shanghai, China.	108
<b>Ferroptosis occurs in a bloom-forming cyanobacterium and propagates intercellularly among colonial cells</b> <u>Yinjie Zhu, Yi Tao</u> [10'+5'] Presenter affiliation: Tsinghua University, Shenzhen, China.	109

**Rapid and sensitive determination of iron in biological samples by micromagnetic resonance relaxometry (MRR)**

Yanmeng Yang, Joogyoon Han [10'+5']

Presenter affiliation: Singapore-MIT Alliance for Research and Technology Centre, Singapore.

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***Break***

**Thiol redox regulation of ferroptosis**

Leonie Thewes, Yana Bodnar, Manuel Etzkorn, Christoph Thiele, Gereon Poschmann, Christopher H. Lillig, Marcus Conrad, Carsten Berndt [10'+5']

Presenter affiliation: Heinrich-Heine University, Düsseldorf, Germany.

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**Investigating the regulation of ferroptosis by the proteostasis network**

Scott J. Dixon [20'+10']

Presenter affiliation: Stanford University, Stanford, California.

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**Wrap-up by Meeting Organizers**

THURSDAY, November 7—5:00 PM

**COCKTAILS and BANQUET**