

## PROGRAM

MONDAY, November 26—7:00 PM

### Welcome Remarks

**Quan Chen**, College of Life Science, Nankai University, China

**Marcus Conrad**, Helmholtz Zentrum München, Germany

**Xuejun Jiang**, Memorial Sloan-Kettering Cancer Center, USA

**Brent Stockwell**, Columbia University, USA

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

**Chairperson:** **Xuejun Jiang**, Memorial Sloan-Kettering Cancer Center, New York, New York, USA

### KEYNOTE SPEAKER

#### **Ferroptosis—Historical perspective and therapeutic applications**

Brent R. Stockwell [35'+10']

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

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#### **Heat stress tolerance and cell death in plants—Role of ferroptosis-like cell death**

Ayelen Distefano, Juan Roldan, Diego F. Fiol, Eduardo J. Zabaleta,

Brent Stockwell, Scott Dixon, Gabriela C. Pagnussat [20'+10']

Presenter affiliation: IIB-CONICET-Universidad Nacional de Mar del Plata, Mar del Plata, Argentina.

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#### **Lifespan and healthspan effects from targeting iron-mediated cell death in *Caenorhabditis elegans***

Nicole L. Jenkins, Simon A. James, Marcus Conrad, Ashley I. Bush,

Gawain McColl [10'+5']

Presenter affiliation: Florey Institute of Neuroscience, University of Melbourne, Parkville, Australia.

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**SESSION 2** IRON BIOLOGY

**Chairperson:** **Chang Chen**, Institute of Biophysics, Chinese Academy of Science, Beijing, China

**Ferroptosis in age-related neurological diseases**

Ashley I. Bush, Scott Ayton [20'+10']

Presenter affiliation: Florey Institute of Neuroscience & Mental Health, Parkville, Australia; University of Melbourne, Parkville, Australia. 4

**Molecular regulation of mitochondrial autophagy**

Quan Chen [20'+10']

Presenter affiliation: College of Life Science Nankai University, Tianjin, China.

**Structural basis for promotion of human iron absorption by duodenal ferric reductase with ascorbate and some dietary metal-chelators**

Menega Ganasen, Xiaojing Yuan, Hitomi Fujishiro, Seiichiro Himeno, A. Grant Mauk, Iqbal Hamza, Yoshitsugu Shiro, Hiroshi Sugimoto, Hitomi Sawai [10'+5']

Presenter affiliation: University of Hyogo, Hyogo, Japan; RIKEN, Hyogo, Japan. 5

**Coffee / Tea Break**

**Ferroptosis in cancer research**

Shinya Toyokuni [20'+10']

Presenter affiliation: Nagoya University Graduate School of Medicine, Nagoya, Japan. 6

**Redistribution of iron using nanotechnology to reverse several human diseases in mouse models**

Guangjun Nie, Shanshan Guo, Linhao You, Jing Wang, Gang Liu, Greg Anderson [20'+10']

Presenter affiliation: National Center for Nanoscience and Technology, Beijing, China. 7

**Fluid and imaging biomarkers of brain iron predict progression of Alzheimer's disease**

Scott Ayton, Ibrahima Diouf, Ashley Bush [10'+5']

Presenter affiliation: Florey Institute of Neuroscience and Mental Health, Melbourne, Australia. 8

**SESSION 3**      POSTER SESSION

- Discovery of novel ferroptosis regulators in cancer cells using CRISPR screening**  
Carla Bezjian, Kamyar Hadian, Larissa Ringelstetter, Joel Schick, Myles Fennell, Ralph Garippa, Brent R. Stockwell  
Presenter affiliation: Columbia University, New York, New York. 9
- Biguanide iridium(III) complexes with potent antimicrobial activity**  
Feng Chen, John Moat, Daniel McFeely, Guy Clarkson, Ian J. Hands-Portman, Jessica P. Furner-Pardoe, Freya Harrison, Christopher G. Dowson, Peter J. Sadler  
Presenter affiliation: University of Warwick, Coventry, United Kingdom. 10
- Enhancing acetylation of Cyclophilin D induced by mitochondrial ferrous iron promote regulated necrosis of neurons after ICH**  
Weixiang Chen, Chao Guo, Xin Liu, Hua Feng  
Presenter affiliation: Third Military Medical University, Chongqing, China. 11
- Quantitative profiling of protein carbonylations in ferroptosis by an aniline-derived probe**  
Ying Chen, Chu Wang  
Presenter affiliation: Peking University, Beijing, China. 12
- Differential expression of antioxidants in soleus muscle after atrophic stress in mice**  
Zhihao Chen, Jinkyung Lee, Eugene Cho, Sun-Hee Ahn, Byung-Ju Park, Tae-Hoon Lee  
Presenter affiliation: Chonnam National University Graduate School, Gwangju, South Korea. 13
- Ferroptosis suppressor protein-1, an oxidoreductase capable of reducing lipid radical species**  
Sebastian Doll, Florencio Porto Freitas, Ron Shah, Bettina Proneth, Maceler Aldrovandi, Valerie O'Donnell, Marcus Sauer, Grzegorz Popowicz, Derek Pratt, José Pedro Friedmann Angeli, Marcus Conrad  
Presenter affiliation: Helmholtz Zentrum München, Neuherberg, Germany. 14

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| <b>Vitamin C sensitizes neural cancer cells to ferroptosis</b><br><u>Luciano Ferrada</u> , Francisco Nualart<br>Presenter affiliation: University of Concepcion, Concepcion, Chile.   | 15 |
| <b>MDM4 inhibitors as new antagonists of ferroptosis</b><br><u>Jeannette Fuchs</u> , Vita Schothorst, Grainne Kerr, Debora Bonenfant,<br>Claerr Isabelle, Florian Fuchs, Rosalie DeBeaumont, David Ruddy,<br>Eric Billy, Marta Cortes-Cros<br>Presenter affiliation: NIBR Oncology, Basel, Switzerland.   | 16 |
| <b>Selenium-encoded isotopic signature targeted profiling</b><br><u>Jinjun Gao</u> , Fan Yang, Jinteng Che, Yankun Wang, Nan Chen, Daniel<br>W. Bak, Shuchang Lai, Xiao Xie, Eranthie Weerapana, Chu Wang<br>Presenter affiliation: Peking University, Beijing, China.  | 17 |
| <b>Ferroptosis is involved in alcohol-induced cell death of<br/>hepatocytes <i>in vivo</i> and <i>in vitro</i></b><br>Min Wang, Hong-Min Yu, Chun-Yu Liu, Wen-Jun Duan, Yi-Fang Li,<br><u>Rong-Rong He</u><br>Presenter affiliation: Jinan University, Guangzhou, China.  | 18 |
| <b>Discovery of small molecule ferroptosis inducers targeting<br/>CoQ<sub>10</sub>-dependent breast cancers</b><br><u>Tal Hirschhorn</u> , Fereshteh Zandkarimi, Brent R. Stockwell<br>Presenter affiliation: Columbia University, New York, New York.  | 19 |
| <b>Chlorogenic acid ameliorates alcohol-induced liver injuries<br/>through scavenging reactive oxygen species</b><br><u>Hyunjin Kim</u> , MinSeok Seo, Jeen-Woo Park<br>Presenter affiliation: Kyungpook National University, Daegu, South<br>Korea.  | 20 |
| <b>NADPH oxidase activity enhances colonization between<br/>Fusobacterium nucleatum promotes colonization of<br/><i>Porphyromonas gingivalis</i> on human gingival fibroblasts</b><br>Zhihao Chen, Jin-Kyung Lee, Eugehe Cho, Sun-Hee Ahn, Byung-Ju<br>Park, <u>Tae-Hoon Lee</u><br>Presenter affiliation: Chonnam National University Graduate School,<br>Gwangju, South Korea; School of Dentistry, Chonnam National<br>University, Gwangju, South Korea. | 21 |
| <b>Upregulation of system x<sub>c</sub><sup>-</sup> and acquired resistance to<br/>ferroptosis/oxytosis by inflammatory stimuli</b><br><u>Jan Lewerenz</u> , Richard Klaus, Frederic Appelt, Timo-Daniel Voss<br>Presenter affiliation: Ulm University, Ulm, Germany.   | 22 |

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| <b>Ferroptotic stress triggers toxic glial activation in neurodegeneration</b><br><u>Jeffrey R. Liddell</u> , James B. Hilton, Kai J. Kysenius, Catriona A. McLean, Ashley I. Bush, Peter J. Crouch<br>Presenter affiliation: University of Melbourne, Parkville, Australia.   | 23 |
| <b>Small molecules targeting dependency on the GPX4 lipid peroxide repair pathway for cancer therapy</b><br><u>Hengrui Liu</u> , Brent R. Stockwell<br>Presenter affiliation: Columbia University, New York, New York.   | 24 |
| <b>Molecular underpinnings of ferroptotic cell death in motor neuron demise</b><br><u>Svenja Lorenz</u> , Jan Lewerenz, Bettina Proneth, Marcus Conrad<br>Presenter affiliation: Institute of Developmental Genetics, Helmholtz Zentrum München, Neuherberg, Germany.  | 25 |
| <b>Bioanalysis and metabolomics profiling of osteosarcoma in response to PEITC treatment—GSH depletion and ROS accumulation triggers different types of cell death</b><br><u>Huanhuan Lv</u> , Chenxiao Zhen, Junyu Liu, Shenghang Wang, Bin zhao, Peng Shang<br>Presenter affiliation: Northwestern Polytechnical University, Xi'an, China; Northwestern Polytechnical University, Shenzhen, China. | 26 |
| <b>Ferritin dysfunction, iron-dopamine coupling, and impaired glutathione activity leads to dopaminergic neurodegeneration</b><br>Patricia M. Chege, Nicole L. Jenkins, Ashley I. Bush, <u>Gawain McColl</u><br>Presenter affiliation: Florey Institute of Neuroscience, Parkville, Australia.   | 27 |
| <b>Cystine deprivation induces mitochondrial lipid peroxidation</b><br><u>Alexander M. Minikes</u> , Minghui Gao, Junmei Yi, Prashant Monian, Xuejun Jiang<br>Presenter affiliation: Memorial Sloan Kettering Cancer Center, New York, New York; Weill Cornell Graduate School of Medical Sciences, New York, New York.  | 28 |
| <b>Targeting ferroptosis in hepatic ischemia/reperfusion injury</b><br><u>Bettina Proneth</u> , Elke Eggenhofer, Sebastian Doll, Svenja Lorenz, Edward K. Geissler, Marcus Conrad<br>Presenter affiliation: Helmholtz Zentrum Muenchen, Neuherberg, Germany.   | 29 |

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| <b>Discovery of mitochondria-targeting compounds assisted by ferroptosis assays</b><br><u>Zude Qi</u> , Dezheng Ning, Xianbo Liu, Xuesong Xu, Zhi Zhao, Cheng Zhou, Yuxi Wang, Ying Yao, Waisi Eng, Rui Zeng, Jia-Ning Xiang<br>Presenter affiliation: XW Laboratories, Inc., Wuhan, China.                                      | 30 |
| <b>Ferroptosis involves regulated rupture that is separable from spreading</b><br><u>Michelle Riegman</u> , Noah J. Steinberg, Michael Overholtzer<br>Presenter affiliation: Memorial Sloan Kettering Cancer Center, New York, New York; Sloan Kettering Institute for Cancer Research, New York, New York.                      | 31 |
| <b>The mechanism of S-sulfocysteine- and sulfite mediated neurodegeneration in molybdenum cofactor deficiency</b><br>Avadh Kumar, Peter Kloppenburg, Ashley I. Bush, Jochen Meier, Abdel A. Beladi, <u>Guenter Schwarz</u><br>Presenter affiliation: University of Cologne, Cologne, Germany.                                    | 32 |
| <b>Beyond DPPH—How best to assess and screen for inhibitors of lipid peroxidation and associated cell death</b><br><u>Ron Shah</u> , Omkar Zilka, Luke Farmer, Antonius Van Kessel, Derek A. Pratt<br>Presenter affiliation: University of Ottawa, Ottawa, Canada.   | 33 |
| <b>Ferroptosis involved in the mechanism of vitamin C induce cancer cell death</b><br>Liangfu Zhou, Lixiu Zhang, <u>Peng Shang</u><br>Presenter affiliation: Northwestern Polytechnical University, Shenzhen, China.   | 34 |
| <b>The HiSMF regulate iron metabolism and inhibit growth of osteosarcoma</b><br>Shenghang Wang, Dandan Dong, Jie Luo, Zhihao Zhang, <u>Peng Shang</u><br>Presenter affiliation: Northwestern Polytechnical University, Xi'an, China; Northwestern Polytechnical University, Shenzhen, China.                                     | 35 |
| <b>Iron is involved in hypomagnetic fields inhibit the recovery of microgravity-induced bone loss</b><br>Yanru Xue, Jiancheng Yang, Jie Luo, Shenghang Wang, Ying Shen, <u>Peng Shang</u><br>Presenter affiliation: Northwestern Polytechnical University, Shenzhen, China; Northwestern Polytechnical University, Xi'an, China. | 36 |

- Iron-dependent ROS production triggers autophagy via Erk1/2 pathway activation and blocks autophagic flux via damaging lysosomes in dihydroartemisinin induced cell death of osteosarcoma**  
Ying Shen, Bin Zhang, Peng Shang  
 Presenter affiliation: Northwestern Polytechnical University, Shenzhen, China; Northwestern Polytechnical University, Xi'an, China. 37
- Vatiquinone—A novel 15-lipoxygenase inhibitor for the treatment of adult and pediatric CNS disease**  
William D. Shrader, Charles R. Holst, Andrew Hinman, Joey C. Latham, Gozde Ulas, Joel J. Bruegger, Kevin P. McCusker, Amanda H. Kahn-Kirby, Kevin G. Hoff, Jeffrey K. Trimmer, Martin Thoolen, Matthew B. Klein  
 Presenter affiliation: BioElectron Inc., Mountain View, California. 38
- Uncovering the binding mode of ferroptosis inducer 56 to squalene synthase toward the design of better cancer therapies**  
Rachid Skouta, Tal Hirschhorn, Farhad Forouhar, Brent Stockwell  
 Presenter affiliation: University of Massachusetts, Amherst, Massachusetts. 39
- The pro-apoptotic Bax-binding protein MOAP-1 is a novel regulator of Nrf2 pro-tumorigenic signaling in liver**  
Chong Teik Tan, Hao-Chun Chang, Qi-Ling Zhou, Annjuline S. Chen, Fritz S. Lai, Ran N. Tao, Chun-Dong Yu, Kanaga Sabapathy, Nai Yang Fu, Victor C. Yu  
 Presenter affiliation: National University of Singapore, Singapore. 40
- Regulation of ferroptosis by the p53 network**  
Divya Venkatesh, David R. Tong, Fereshteh Zandkarimi, Connie Zheng, Michael E. Stokes, Eli Kengmana, Alyssa M. Klein, Joleen M. Csuka, Jiandong Chen, Julie R. Haines, Angelo D'Alessandro, Carol Prives, Brent Stockwell  
 Presenter affiliation: Columbia University, New York, New York. 41
- Exploring cellular processing and localization of ferroptosis-inhibiting deuterated polyunsaturated fatty acids**  
A. Nikolai von Krusenstiern, Fanghao Hu, Divya Venkatesh, Wei Min, Mikhail S. Shchepinov, Brent R. Stockwell. 42
- Quinalizarin exerts anti-tumour effect on lung and colorectal cancer cells by modulating ROS-mediated signaling pathway**  
Hao Wang, Ying-Hua Luo, Cheng-Hao Jin  
 Presenter affiliation: College of Life Science & Technology, Heilongjiang Bayi Agricultural University, DaQing, China. 43

- Novel naphthoquinone derivatives induced apoptosis via ROS-regulated MAPK and STAT3 signaling in human gastric cancer**  
Jia-Ru Wang, Ying-Hua Luo, Cheng-Hao Jin  
 Presenter affiliation: Heilongjiang Bayi Agricultural University, Daqing, China. 44
- A novel axis comprising IRP1 and Bcl-xL modulates iron stress-induced mitophagy**  
Hao Wu, Huifang Wei, Lei Liu, Quan Chen  
 Presenter affiliation: The State Key Laboratory of Membrane Biology, Institute of Zoology, CAS, Beijing, China. 45
- Cryptotanshinone induces apoptosis and cell cycle arrest via ROS-mediated MAPKs, Akt and STAT3 pathways in human gastric cancer cells**  
Wan-Ting Xu, Ying-Hua Luo, Cheng-Hao Jin  
 Presenter affiliation: Heilongjiang Bayi Agricultural University, Daqing, China. 46
- Krebs cycle enzymes in tumor suppression and ferroptosis**  
Junmei Yi, Xuejun Jiang  
 Presenter affiliation: Memorial Sloan Kettering Cancer Center, New York, New York. 47
- Sulfasalazine enhances NETosis via a different mechanism than ferroptosis**  
Satoshi Yotsumoto, Tatsuya Chiba, Rio Ohmura, Ryohei Aoyagi, Makoto Arita, Masato Tanaka  
 Presenter affiliation: Tokyo University of Pharmacy and Life Sciences, School of Life Sciences, Tokyo, Japan. 48
- Mechanism of novel 1,4-Naphthoquinone derivatives inducing apoptosis of lung cancer cells through ROS-dependent MAPK/Akt/STAT3 pathways**  
Yi Zhang, Ying-Hua Luo, Cheng-Hao Jin  
 Presenter affiliation: College of Life Science and Technology, Heilongjiang Bayi Agricultural University, Daqing, China. 49
- Iron-dependent cell death as executioner of cancer stem cells**  
Huanhuan Lv, Bin Zhao, Xin Li, Ye Wang, Peng Shang  
 Presenter affiliation: Northwestern Polytechnical University, Xi'an, China. 50



TUESDAY, November 27—4:30 PM

**Chinese Tea and Beer Tasting**

TUESDAY, November 27—7:00 PM

**SESSION 4** ROS BIOLOGY

**Chairperson:** **Quan Chen**, Nankai University and Institute of Zoology, Tianjin, China

**Redox-stress response capacity (RRC) and aging**

Jiao Meng, Zhenyu Lv, Xinhua Qiao, Xiaopeng Li, Yazi Li, Chang Chen [20'+10']

Presenter affiliation: Institute of Biophysics, Chinese Academy of Sciences, Beijing, China; University of Chinese Academy of Sciences, Beijing, China. 51

**Aerobic metabolism links lipid peroxidation to ferroptotic cell death**

Ana-Marija Vuckovic [10'+5']

Presenter affiliation: University of Padua, Padua, Italy. 52

**Effect of iron chelation on mitochondrial respiration and cell senescence**

Seongki Min, So Mee Kwon, Gyeseon Yoon [20'+10']

Presenter affiliation: Ajou University School of Medicine, Suwon, South Korea. 53

**Differential effect of sulfur species on the redox balance in molybdenum cofactor deficiency**

Anna-Theresa Mellis, Mami Sato, Milene Costa da Silva, Michaela Hoehne, Avadh Kumar, Abdel Ali Belaidi, Ashley Bush, Jan Riemer, Marcus Conrad, Guenter Schwarz [10'+5']

Presenter affiliation: University of Cologne, Cologne, Germany. 54

**Coffee / Tea Break**

**Oxidative stress and redox signaling in virus-induced carcinogenesis**

Canhua Huang [20'+10']

Presenter affiliation: West China School of Basic Medical Sciences and Forensic Medicine, and State Key Lab of Biotherapy, West China Hospital, Chengdu, China. 55

**The iron effect in Abeta toxicity with *Drosophila* modeling**  
Bing Zhou, Yunpeng Huang [20'+10']  
Presenter affiliation: Tsinghua University, Beijing, China. 56

**Dissecting anti-reactive oxygen species machineries in cancer cells**  
Ying Hu [10'+5']  
Presenter affiliation: Harbin Institute of Technology, Harbin, China. 57

WEDNESDAY, November 28—9:00 AM

**SESSION 5** LIPID PEROXIDATION

**Chairperson:** **Brent R. Stockwell**, Columbia University, New York, New York, USA

**Lipoxygenase peroxidation is sufficient for ferroptosis**  
Valerian Kagan [20'+10']  
Presenter affiliation: University of Pittsburgh, Pittsburgh, Pennsylvania.

**Ferroptosis inhibition and what it reveals about the mechanism of cell death**  
Derek A. Pratt [20'+10']  
Presenter affiliation: University of Ottawa, Ottawa, Canada. 58

**Mechanistic studies on Artemisinin induced ferroptosis—From intermediate radicals to lipid peroxidation**  
Feng Li, Sufang Shui, Guangcan Bai, Guoquan Liu [10'+5']  
Presenter affiliation: Peking University, Beijing, China. 59

**Coffee / Tea Break**

**Isotope-enforced polyunsaturated fatty acids, lipid peroxidation, and disease**  
Ginger Milne [20'+10']  
Presenter affiliation: Vanderbilt University Medical Center, Nashville, Tennessee.

**Chemoproteomic profiling of protein carbonylations in ferroptosis**  
Chu Wang [20'+10']  
Presenter affiliation: Peking University, Beijing, China. 60

**Non-canonical ferroptosis drives acute iron poisoning-induced organ injury**

Samya Van Coillie, Wannes Weyts, Lars Devisscher, Sam Hofmans, Daniel Alvarez, Sze Men Choi, Bartosz Wiernicki, Behrouz Hassannia, Gilberto Padro-Andreu, Andreas Linkermann, Peter Vandenabeele, Koen Augustyns, Tom Vanden Berghe [10'+5']

Presenter affiliation: VIB, Ghent, Belgium; Ghent University, Ghent, Belgium; University of Antwerp, Wilrijk, Belgium.

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WEDNESDAY, November 28—1:30 PM

**Visit to Old Suzhou**

WEDNESDAY, November 28—7:00 PM

**SESSION 6** MOLECULAR MECHANISMS, GENETICS, AND METABOLISM

**Chairperson:** **Marcus Conrad**, Helmholtz Zentrum München, Munich, Germany

**NRF2, ROS and ferroptosis in human diseases**

Donna D. Zhang [20'+10']

Presenter affiliation: University of Arizona, Tucson, Arizona.

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**The BAP1-SLC7A11 signaling axis regulates ferroptosis, tumor suppression, and glucose dependency**

Yilei Zhang, Pranavi Koppula, Xiaoguang Liu, Boyi Gan [10'+5']

Presenter affiliation: The University of Texas MD Anderson Cancer Center, Houston, Texas.

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**Cellular signaling and metabolism in ferroptosis**

Xuejun Jiang [20'+10']

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

**SUMO protease SENP3 mediates cellular oxidative stress responses to inflammatory and carcinogenic insults**

Jing Yi [10'+5']

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

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**Coffee / Tea Break**

### **Role of mitochondria in ferroptosis**

Minghui Gao, Junmei Yi, Jiajun Zhu, Alexander Minikes, Prashant Monian, Craig B. Thompson, Xuejun Jiang [20'+10']

Presenter affiliation: Harbin Institute of Technology, Harbin, China; Memorial Sloan-Kettering Cancer Center, New York, New York.

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### **Ironing in and out of ferroptosis**

Fudi Wang [20'+10']

Presenter affiliation: Zhejiang University, Hangzhou, China.

### **CYLD links regulated necrosis to mitochondrial pathways of ferroptosis**

Ina Eisenbach, Lena Hoffmann, Goutham Ganjam, Nikolaus Plesnila, Carsten Culmsee [10'+5']

Presenter affiliation: University of Marburg, Marburg, Germany.

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THURSDAY, November 29—9:00 AM

## **SESSION 7      PHYSIOLOGICAL RELEVANCE AND DEGENERATION**

**Chairperson:**    **Hülya Bayir**, University of Pittsburgh, Pittsburgh, Pennsylvania, USA

### **Ferroptosis mechanisms in health and disease**

Marcus Conrad [20'+10']

Presenter affiliation: Helmholtz Zentrum München, Munich, Germany.

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### **A p53-independent role of Mdm2 and MdmX in ferroptosis**

Divya Venkatesh, David R. Tong, Fereshteh Zandkarimi, Connie Zheng, Michael E. Stokes, Eli Kengmana, Alyssa M. Klein, Joleen M. Csuka, Jiandong Chen, Julie R. Haines, Angelo D'Alessandro, Carol Prives, Brent R. Stockwell [20'+10']

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

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### **Selenium induces an adaptive transcriptional response to inhibit ferroptosis and improve recovery after brain hemorrhage**

Ishraq Alim, Joseph T. Caulfield, Yingxin Chen, Vivek Swarup, Daniel H. Geschwind, Elena Ivanova, Javier Seravalli, Youxi Ai, Lauren H. Sansing, Emma J. Ste. Marie, Robert J. Hondal, John W. Cave, Botir T. Sagdullaev, Saravanan S. Karuppagounder, Rajiv R. Ratan [10'+5']

Presenter affiliation: Burke Medical Research Institute at Weill Cornell Medicine, White Plains, New York; Weill Cornell Medical College, New York, New York.

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**Coffee / Tea Break**

**Ferroptosis contributes to the pathogenesis of renal and cardiac diseases**

Andreas Linkermann [20'+10']

Presenter affiliation: Universitätsklinikum Carl Gustav Carus Dresden, Dresden, Germany.

**Iron accumulation in mouse models of Duchenne muscular dystrophy**

Francesca M. Alves, Scott Ayton, Ashley I. Bush, Gordon S. Lynch, Rene Koopman [10'+5']

Presenter affiliation: The University of Melbourne, Melbourne, Australia; Melbourne Dementia Research Centre, The Florey Institute of Neuroscience and Mental Health, Melbourne, Australia.

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**Using oxytosis/ferroptosis to identify novel compounds for the treatment of Alzheimer's disease**

Pamela Maher, Antonio Currais, Gamze Ates, David Schubert [10'+5']

Presenter affiliation: Salk Institute, La Jolla, California.

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THURSDAY, November 29—2:00 PM

**SESSION 8**      CANCER RELEVANCE

**Chairperson:**    **Keith Woerpel**, New York University, New York, USA

**ROS-induced ferroptosis acts as a novel tumor suppression pathway of p53**

Wei Gu [20'+10']

Presenter affiliation: Columbia University Medical Center, New York, New York; Columbia University Medical Center, New York, New York.

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**TP53 codon 47 variants display differential ferroptosis regulation**

Julia I-Ju Leu, Maureen E. Murphy, Donna L. George [20'+10']

Presenter affiliation: The Perelman School of Medicine at the University of Pennsylvania, Philadelphia, Pennsylvania.

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**The cystine/glutamate antiporter is essential for maintaining the highly metastatic potential of B16F10 skin melanoma cells**  
Mami Sato, Kunishige Onuma, Milene Costa da Silva, Ryosuke Kusumi, Mitsuhiko Osaki, Regina Feederle, Shiro Bannai, Marcus Conrad, Futoshi Okada, Hideyo Sato [10'+5']  
Presenter affiliation: Niigata University, Niigata, Japan. 74

**Fumarate hydratase inactivation disrupts cellular iron signaling and sensitizes cells to ferroptosis**  
Aikseng Ooi, Michael Kerins [10'+5']  
Presenter affiliation: College of Pharmacy, University of Arizona, Tucson, Arizona. 75

### ***Coffee / Tea Break***

**A genome-wide haploid genetic screen identifies negative regulators of glutathione levels and ferroptosis sensitivity**  
Jennifer Y. Cao, Aunoy Poddar, Giovanni Forcina, Susan P. Cole, Jan E. Carette, Scott J. Dixon [20'+10']  
Presenter affiliation: Stanford University, Stanford, California. 76

**Reprogramming the reactivity of iron in mesenchymal cancer cells**  
Raphaël Rodriguez, Tatiana Cañeque, Sebastian Muller [10'+5']  
Presenter affiliation: Institut Curie, Paris, France; CNRS, Paris, France; INSERM, Paris, France; PSL, Paris, France. 77

**Targeting a therapy-resistant cancer cell state using masked electrophiles as GPX4 inhibitors**  
John K. Eaton, Laura Furst, Richard A. Ruberto, Dieter Moosmayer, Roman Hillig, Andre Hilpmann, Katja Zimmermann, Matthew J. Ryan, Michael Niehues, Volker Badock, Anneke Kramm, Sixun Chen, Stefan Gradl, Kiel Lazarski, Sven Christian, Ashley L. Eheim, Vasanthi S. Viswanathan, Stuart L. Schreiber [10'+5']  
Presenter affiliation: Broad Institute, Cambridge, Massachusetts. 78

**Nano-targeted induction of dual ferroptotic mechanisms eradicates high-risk neuroblastoma**  
Behrouz Hassannia, Bartosz Wiernicki, Irina Ingold, Feng Qu, Simon Van Herck, Hülya Bayir, Jose Pedro Friedmann Angeli, Ken Declerck, Chandra Sekhar Chirumamilla, Paul G Ekert, Simone Fulda, Bruno G. De Geest, Marcus Conrad, Valerian E. Kagan, Wim Vanden Berghe, Peter Vandenabeele, Tom Vanden Berghe [10'+5']  
Presenter affiliation: VIB, Ghent, Belgium; Ghent University, Ghent, Belgium. 79

THURSDAY, November 29—6:00 PM

## COCKTAILS and BANQUET

FRIDAY, November 30—9:00 AM

### SESSION 9 THERAPEUTIC APPLICATIONS

**Chairperson:** **Gabriela Pagnussat**, Universidad Nacional de Mar del Plata, Mar del Plata, Argentina

#### **Ferroptotic cell rupture and spreading**

Michael Overholtzer [20'+10']

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

#### **Five-membered ring peroxides as initiators of ferroptosis**

Keith Woerpel [20'+10']

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

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#### ***Coffee / Tea Break***

#### **At the crossroads of cell death pathways**

Hülya Bayir [20'+10']

Presenter affiliation: University of Pittsburgh, Pittsburgh, Pennsylvania.

Xiyun Yan [20'+10']

Presenter affiliation: Institute of Biophysics, CAS, Beijing, China.

#### **Multiplex analysis of redox landscapes and dynamics in living cells and in vivo**

Yuzheng Zhao, Qingxun Hu, Aoxue Wang, Yejun Zou, Yi Yang

[20'+10']

Presenter affiliation: East China University of Science and Technology, Shanghai, China; Shanghai Institutes for Biological Sciences, Chinese Academy of Sciences, Shanghai, China.

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### **Closing Remarks**

By Conference Organizers