

May 8 – 11, 2017

All sessions will be located at the **UCLA Meyer & Renee Luskin Conference Center, Centennial Hall, Level One**, unless otherwise noted. Speakers and times are subject to change.

MONDAY, MAY 8, 2017

OVERVIEW

7:00 – 18:30 **Registration/Information Desk Open**
Location: Centennial Hall Prefunction, Level One

9:00 – 15:00 **Exhibit Hall Open**
Location: Centennial Hall Prefunction, Level One

GENERAL SESSION

8:00 – 8:15 **Opening Ceremony/Welcome Address**

8:15 – 10:20 **Plenary Session I: 30-Year Anniversary of IRE Discovery**

Chairs: Lukas Kuhn, PhD
Ecole Polytechnique Federale de Lausanne (EPFL)
Switzerland

William Walden, PhD
University of Illinois at Chicago
USA

8:15 – 8:40 **The IRP– IRE System – Historical Perspective**
Speaker: Elizabeth A. Leibold, PhD
University of Utah
USA

8:40 – 9:05 **The Role of the IRE– IRP System in Regulation of Iron Homeostasis in Cells and Tissues**
Speaker: Tracey Rouault, MD
National Institutes of Health
USA

9:05 – 9:30 **Organismal Functions of the IRP/IRE Regulatory Network**
Speaker: Bruno Galy, PhD
German Cancer Research Center Heidelberg
Germany

9:30 – 9:55 **New Insights into the Regulation and Function of IRP1**
Speaker: Richard Eisenstein, PhD
University of Wisconsin
USA

9:55 – 10:20 **The IRE, Metabolism and RNA Biology: The Next 10 Years**
Speaker: Matthias Hentze, MD
EMBL, Heidelberg
Germany

10:20 – 10:45 **Coffee Break**

10:45 – 11:45 **Keynote Lecture**
Chair: Robert E. Fleming, MD
St. Louis University School of Medicine
USA

Microbial Iron Piracy and Evolution
Speaker: Nels C. Elde, PhD
The University of Utah School of Medicine
USA

11:45 – 13:30 **Lunch – Interviews with the Masters**
Location: Centennial Terrace, Level Three
Interviewer: Esther Meyron-Holtz, PhD
Interviewee: Chaim Hershko, MD

| 13:30 – 15:00 | | Concurrent Session I: Iron Sensing in the Liver | |
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| | | <i>Location:</i> | <i>Centennial Hall AB, Level One</i> |
| | | <i>Chairs:</i> | Leon Kautz, PhD Université Toulouse Paul Sabatier France Laura Silvestri, PhD San Raffaele Scientific Institute & Vita– Salute University Italy |
| 13:30 – 13:45 | #1 | HEPATOCTE TRANSFERRIN RECEPTOR 1 OPERATES AS A SENSOR OF SERUM IRON AND IS DISPENSABLE FOR HEPATOCELLULAR IRON SUPPLY | John Wagner, MSc, Carine Fillebeen, PhD and Kostas Pantopoulos, PhD Lady Davis Institute for Medical Research/McGill University Presented By: Kostas Pantopoulos |
| 13:45 – 14:00 | #2 | NRF2 CONTROLS SYSTEMIC IRON HOMEOSTASIS VIA BMP6 AND HEPcidIN AND ALLEVIATES HEMOCHROMATOSIS | Pei Jin Lim, Tiago L. Duarte, Sant-Rayn Pasricha, Andrew E. Armitage, Ana G. Santos, Alireza Morovat, Elizabeth Soilleux, Chia-Yu Wang, Jodie L. Babitt, Graça Porto and Hal Drakesmith MRC Human Immunology Unit, Weatherall Institute of Molecular Medicine, University of Oxford Presented By: Pei Jin Lim |
| 14:00 – 14:15 | #3 | FUNCTIONAL CONSEQUENCES OF N- LOBE SPECIFIC MUTATIONS IN THE TRANSFERRIN BINDING SITE | Nermi Parrow ¹ , Yihang Li, PhD ¹ , Princy Prasad ¹ , Yelena Ginzburg, MD ² , Stefano Rivella, PhD ³ and Robert Fleming, MD ¹ ¹ Saint Louis University School of Medicine; ² Icahn School of Medicine at Mount Sinai; ³ Children's Hospital of Philadelphia Presented By: Nermi Parrow |
| 14:15 – 14:30 | #4 | ENDOTHELIAL CELLS PRODUCE BMP6 REQUIRED FOR IRON HOMEOSTASIS IN MICE AND PROVIDE A MODEL FOR STUDYING IRON- MEDIATED REGULATION OF THE BMP6- HEPcidIN AXIS | Susanna Canali, PhD, Chia- Yu Wang, PhD, Kimberly B. Zumbrennen- Bullough, PhD, Amanda B. Core, PhD, Manfred Nairz, MD, PhD, Richard Bouley, PhD, Filip K. Swirski, PhD and Jodie L. Babitt, MD Program in Anemia Signaling Research, Division of Nephrology, Program in Membrane Biology, Center for Systems Biology, Massachusetts General Hospital, Harvard Medical School, Boston, MA Presented By: Susanna Canali |
| 14:30 – 14:45 | #5 | NEOGENIN FACILITATES THE INDUCTION OF HEPcidIN EXPRESSION BY HEMOJUVELIN IN THE LIVER | Ningning Zhao ² , Julia Maxson ¹ , Richard Zhang ¹ , Mastura Wahedi ¹ , Caroline Enns ¹ and An- Sheng Zhang ¹ ¹ Oregon Health & Science University; ² University of Arizona Presented By: An- Sheng Zhang |
| 14:45 – 15:00 | #6 | HEPATIC HEPARAN SULFATE REGULATES HEPcidIN EXPRESSION BY MODULATING BMP6/SMAD SIGNALING | Maura Poli, PhD ¹ , MF Anower- E- Khuda, PhD ² , Michela Asperti, PhD ¹ , Paola Ruzzenenti, PhD student ¹ , Philip Gordts, PhD ² , Jeffrey D. Esko, PhD ² and Paolo Arosio, PhD ¹ ¹ University of Brescia; ² UCSD Presented By: Maura Poli |

| 13:30 – 15:00 | | Concurrent Session II: Brain and Iron | |
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| | | <i>Location:</i> | <i>Centennial Hall CD, Level One</i> |
| | | <i>Chairs:</i> | James Connor, PhD Pennsylvania State University USA Daniel Kosman, PhD University of Buffalo USA |
| 13:30 – 13:45 | #7 | IPSC-DERIVED NEURONS OF PANTOTHENATE KINASE-ASSOCIATED NEURODEGENERATION SHOW MITOCHONDRIAL IRON/CALCIUM MISHANDLING | Paolo Santambrogio, PhD ² , Daniel I. Orellana, PhD ² , Alicia Rubio, PhD ² , Anna Cozzi, PhD ² , Vania Broccoli, PhD ³ and Sonia Levi, PhD ¹ ¹ Vita- Salute San Raffaele University; ² San Raffaele Scientific Institute Milano, Italy; ³ CNR- Institute of Neuroscience, Milano, Italy Presented By: Sonia Levi |

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| 13:45 – 14:00 | #8 | RESTORATION OF ENERGY METABOLISM AND CYTOSOLIC IRON BURDEN USING A COA SYNTHESIS PATHWAY INTERMEDIATE IN PKAN CELLS Suh Young Jeong, PhD, Rachel Fox, BA, Jeffrey Hamada, BA, Martina Ralle, PhD and Susan Hayflick, MD Dept. of Molecular & Medical Genetics, Oregon Health & Science University Presented By: Suh Young Jeong |
| 14:00 – 14:15 | #9 | STUDY OF BRAIN IRON ACCUMULATION AND DEPOSITION OF AMYLOID PLAQUES IN A MOUSE MODEL THAT COMBINES BRAIN IRON LOADING WITH ALZHEIMER'S DISEASE AMYLOID PATHOLOGY Ritambhara Aryal ¹ , Jason Woods ¹ , Kristy Martin ¹ , Seak– Lin Ly ¹ , Daniel Johnstone, PhD ² and Elizabeth Milward, PhD ¹ ¹ The University of Newcastle; ² University of Sydney Presented By: Ritambhara Aryal |
| 14:15 – 14:30 | #10 | SINGLE CELL RNASEQ ANALYSIS PROVIDES EVIDENCE FOR RELATIONSHIPS BETWEEN IRON-RELATED GENE EXPRESSION AND BRAIN OLIGODENDROGLIAL MYELINATING CAPABILITY Seak Lin Ly ¹ , Carlos Riveros, PhD ² , Moones Heidari, PhD ³ , Daniel Johnstone, PhD ⁴ and Elizabeth Milward, PhD ² ¹ The University of Newcastle; ² The University of Newcastle, Australia; ³ University of Wisconsin, USA; ⁴ University of Sydney, Australia Presented By: Seak Lin Ly |
| 14:30 – 14:45 | #11 | MODULATING ANTIBODY AFFINITY TOWARDS THE TRANSFERRIN RECEPTOR TO INCREASE BRAIN UPTAKE OF ANTI-TRANSFERRIN RECEPTOR ANTIBODY TARGETED GOLD NANOPARTICLES Kasper Bendix Johnsen, MSci ² , Martin Bak, Civil Ing ³ , Fredrik Melander, Civil Ing, PhD ³ , Annette Burkhart, MSci, PhD ² , Paul Kempen, MSci, PhD ³ , Thomas Lars Andresen, Civil Ing, PhD ³ and Torben Moos, MD, PhD, DMSci ¹ ¹ Aalborg University; ² Laboratory for Neurobiology, Institute of Health Science and Technology, Aalborg University, Denmark; ³ Center for Nanomedicine and Theranostics, Department of Micro–and Nanotechnology, Technical University of Denmark, Denmark Presented By: Torben Moos |
| 14:45 – 15:00 | #12 | CONDITIONAL MULLER CELL ABLATION LEADS TO RETINAL IRON ACCUMULATION Bailey Baumann, BA, Ying Song, MD, Delu Song, MD, PhD, Jacob Sterling, BS, MS, Weiyong Shen, MD, PhD, Mark Gillies, PhD and Joshua Dunaief, MD, PhD FM Kirby Center for Molecular Ophthalmology, School of Veterinary Medicine, University of Pennsylvania Presented By: Bailey Baumann |

15:00 – 15:15

Break

15:15 – 16:45

Concurrent Session III: Intermediary Metabolism as a Regulator of Erythropoiesis and Iron

Location: Centennial Hall AB, Level One

Chairs: Max Gassmann, DVM
University of Zurich
Switzerland

Carole Peyssonnaud, PhD
Institut Cochin
France

15:15 – 15:40

Acetate Switch Regulates Erythropoiesis

Speaker: Joseph Garcia, MD, PhD
University of Texas Southwestern Medical Center
USA

15:40 – 16:05

Isocitrate and Aconitase in Regulation of Erythropoiesis

Speaker: Adam Goldfarb, MD
University of Virginia School of Medicine
USA

16:05 – 16:30

New Pathways Controlling Cellular Response to Iron Deficiency

Speaker: Hossein Ardehali, MD, PhD
Northwestern University
USA

16:30 – 16:45

#13

ACONITASE: AN IRON SENSING REGULATOR OF MITOCHONDRIAL OXIDATIVE METABOLISM AND ERYTHROPOIESIS

Grant Bullock, MD, PhD, Naomi Gunawardena, BS, Valerie Miller, MS, Chante Richardson, PhD, Teague Cole, BS, Catherine Corey, MPH, Yinna Wang, MD, PhD and Sruti Shiva, PhD
University of Pittsburgh
Presented By: Grant Bullock

15:15 – 16:45

Concurrent Session IV: The Role of Iron in Metabolic and Cardiovascular Disorders

Location: Centennial Hall CD, Level One

Chairs: Martina Muckenthaler, PhD
University Hospital Heidelberg
Germany
Gaetano Cairo, PhD
University of Milan School of Medicine
Italy

15:15 – 15:30 #14 **FUNCTIONAL IRON DEFICIENCY CAUSED BY LOSS OF IRON REGULATORY PROTEIN 2 LEADS TO PANCREATIC β CELL DYSFUNCTION**

Elizabeth Leibold, PhD, Cole P. Anderson, PhD and Steven J. Romney, BS
University of Utah, USA
Presented By: Elizabeth Leibold

15:30 – 15:45 #15 **DISREGULATED IRON AND LIPID METABOLISM IN MICE WITH LIVER-SPECIFIC KNOCKOUT OF IRON CHAPERONE PCBP1**

Olga Protchenko, PhD¹, Fengmin Li, PhD¹, Mino Shakhoury-Elizeh, MS¹, Manik C. Ghosh, PhD², Oksana Gavrilova, PhD¹ and Caroline C. Philpott, MD¹
¹National Institutes of Health, NIDDK; ²National Institutes of Health, NICHD
Presented By: Olga Protchenko

15:45 – 16:00 #16 **AN ESSENTIAL ROLE FOR THE BMP-SMAD PATHWAY IN HEPCIDIN INDUCTION DURING ER STRESS AND NAFLD/NASH**

Audrey Belot, PhD student², Ophélie Goubeyre, Aude Rubio, Céline Besson-Fournier, Chloé Latour, Inka Gallitz, Alexandra Montagner, Arnaud Polizzi, Marion Régnier, Andrea U. Steinbicker, Hervé Guillou, Marie-Paule Roth, Héléne Coppin and Delphine Meynard, PhD¹
¹INSERM; ²IRSD, Université de Toulouse, INSERM, INRA, ENVT, UPS, France
Presented By: Delphine Meynard

16:00 – 16:15 #17 **LOW IRON DIET AND CHELATION THERAPY PREVENT IRON-AGGRAVATED ATHEROSCLEROSIS IN A MOUSE MODEL OF HEREDITARY HEMOCHROMATOSIS**

Francesca Vinchi¹, Andreas Simmelbauer, MD student¹, Sandro Altamura, PhD¹, Richard Sparla, BTA¹, Graca Porto, MD², Sebastian Speich, MD³, Bruno Galy, PhD⁴, Matthias W. Hentze, MD⁵ and Martina U. Muckenthaler, PhD¹
¹Molecular Medicine Partnership Unit (MMPU), University of Heidelberg & EMBL, Heidelberg, Germany; ²University of Porto, Porto, Portugal; ³University of Heidelberg, Germany; ⁴German Cancer Research Center (DKFZ), Germany; ⁵European Molecular Biology Laboratory (EMBL), MMPU, Heidelberg, Germany
Presented By: Francesca Vinchi

16:15 – 16:30 #18 **GENETIC LOSS OF Tmprss6, THE GENE MUTATED IN IRON-REFRACTORY IRON DEFICIENCY ANEMIA, DISRUPTS PHOSPHATE HOMEOSTASIS IN MICE**

Xiuqi Li, BS, Larisa Lozovatsky, MS, Abitha Sukumaran, PhD, Steven Tommasini, PhD, Jackie Fretz, PhD and Karin Finberg, MD, PhD
Yale School of Medicine
Presented By: Xiuqi Li

16:30 – 16:45 #19 **TYPE 2 DIABETES RISK AND NORMATIVE VALUES FOR IRON BIOMARKERS**

Leo Zacharski¹, Galina Shamayeva, MS², Bruce Chow, MS² and Ralph DePalma, MD³
¹VA Hospital & Dartmouth Hitchcock Medical Center; ²Palo Alto VA Hospital; ³VA Central Office
Presented By: Leo Zacharski

16:45 – 19:00

Poster Session I

Location: South Meeting Rooms, Level Two

Refreshments available. Beer and wine service to begin at 17:00.

Poster #10

EXPLORING THE EFFECTS OF IRON DEFICIENCY ANAEMIA AND REPLETION WITH INTRAVENOUS IRON ON EXERCISE PERFORMANCE IN C57 WILD TYPE MICE

Anna Butcher, MBBS, PhD¹, Marija Sajic, MBBS, PhD², Kenneth Smith, PhD² and Toby Richards, MD, FRCS³
¹UCL; ²Department of Neuroinflammation, Institute of Neurology, UCL, London, United Kingdom; ³Division of Surgery and Interventional Medicine, UCL, London, United Kingdom
Presented By: Anna Butcher, MBBS, PhD

Poster #11

NCOA4 INCREASES IN CONDITION OF MODERATE IRON OVERLOAD BUT NOT IN HIGHLY IRON OVERLOADED MICE AND IN TFR2 KO ANIMALS

Rosa Maria Pellegrino, PhD², Martina Boero, Dr², Antonietta Palmieri, Dr², Mariarosa Mezzanotte, Dr², Giuseppe Saglio, MD² and Antonella Roetto, PhD¹
¹University of Torino; ²University of Torino, Department of Clinical and Biological Sciences, AOU San Luigi Gonzaga, 10043 Orbassano, Torino, Italy
Presented By: Antonella Roetto, PhD

- Poster #12** **BASIDIOCHROME: MAIN SIDEROPHORE OF MYCORRHIZAL FUNGAL SYMBIONTS OF ORCHIDS WITH INTERESTING CHEMICAL AND BIOLOGICAL PROPERTIES**
Kurt Haselwandter, Dr¹, D. Pretsch, Dr² and J.M. Rollinger, Dr²
¹University of Innsbruck; ²University of Vienna
Presented By: Kurt Haselwandter
- Poster #13** **DISRUPTION OF THE HEPCIDIN/FERROPORTIN REGULATORY CIRCUITRY CAUSES PULMONARY IRON OVERLOAD AND RESTRICTIVE LUNG DISEASE**
Joana Neves^{1,4}, Dominik Leitz², Christina Brandenberger³, Christian Mühlfeld³, Raman Agrawal², Marcus A. Mall^{2,5}, Sandro Altamura^{1,4,5} and Martina U. Muckenthaler^{1,4,5}
¹Department of Pediatric Hematology, Oncology and Immunology, University of Heidelberg, Germany; ²Translational Lung Research Center Heidelberg, German Center for Lung Research (DZL), University of Heidelberg, Germany; ³Institute of Functional and Applied Anatomy, Biomedical Research in Endstage and Obstructive Lung Disease Hannover (BREATH), German Center for Lung Research (DZL), Hannover Medical School, Germany; ⁴Molecular Medicine Partnership Unit, Heidelberg, Germany; ⁵Equal contribution
Presented By: Joana Neves
- Poster #14** **GENETIC DISRUPTION OF A REDOX ENZYME NCB5OR IN MICE RESULTS IN IRON DYSHOMEOSTASIS, NEUROLOGICAL DEFECTS AND HEARING LOSS IN ADDITION TO EARLY-ONSET LEAN DIABETES**
Hao Zhu, PhD, WenFang Wang, PhD, Matthew Stroh, PhD, Marcello Peppi, PhD, Haping Wang, MD, Ming Xu, PhD, Zhi-nong Yin, PhD and Jie Dai, MD
University of Kansas Medical Center
Presented By: Hao Zhu, PhD
- Poster #15** **METHODOLOGICAL CONSIDERATIONS IN IRON STAINING OF SELECT NON-HEPATIC TISSUES OF MOUSE MODELS OF HEMOCHROMATOSIS**
Kristy Martin¹, William Myles¹, Daniel Johnstone², Ali Shahandeh¹ and Elizabeth Milward¹
¹The University of Newcastle; ²University of Sydney
Presented By: Kristy Martin
- Poster #16** **HAEMOCHROMATOSIS INTERNATIONAL-AN ALLIANCE OF HEREDITARY HAEMOCHROMATOSIS GROUPS AROUND THE WORLD**
Desley White, Pierre Brissot, Barbara Butzeck, Howard Don, Robert Evans, Paulo Santos, Emerencia Teixeira and Ben Marris
Plymouth University
Presented By: Desley White, PhD, BSc Hons
- Poster #17** **HEPCIDIN DETERMINATION IN NON-HFE HEMOCHROMATOSIS. A CASE-CONTROL STUDY**
Ana López Aparicio¹, Maria Dolores Pulfer, Resident², Alejandra García, Resident², Maria Josefa Moran, PH², Maria Isabel Moreno, PH² and Alejandro Del Castillo, Staff²
¹Gregorio Marañón university hospital; ²Gregorio Marañón University Hospital
Presented By: Ana Aparicio, MD
- Poster #18** **FUNCTIONAL STUDIES OF A SINGLE NUCLEOTIDE POLYMORPHISM IN DUODENAL CYTOCHROME B**
Fabian Schlottmann, BSc, M. Vera- Aviles, and G.O. Latunde- Dada, PhD
Faculty of Life Sciences, Diabetes and Nutritional Sciences Division, King's College London, United Kingdom
Presented By: Gladys Latunde- Dada, PhD
- Poster #19** **TYPE 4 HEREDITARY HEMOCHROMATOSIS: CHARACTERIZATION OF PATIENTS REFERRING TO THE REGIONAL CENTER FOR IRON DISORDERS IN VERONA (ITALY)**
Annalisa Castagna^{1,2}, Chiara Piubelli, PhD, Giacomo Marchi, MD, Monica Rizzi, MD, Fabiana Busti, MD, Alice Vianello, MD, Paola Capelli, MD, Roberto Pozzi- Mucelli, MD, Luciano Xumerle, BSc, Massimo Delledonne, PhD, Oliviero Olivieri, MD and Domenico Girelli, MD, PhD
¹Veneto Region Referral Center for Iron Disorders, Azienda Ospedaliera Universitaria Integrata; ²Department of Medicine, Section of Internal Medicine, University of Verona, Verona, Italy
Presented By: Annalisa Castagna, PhD
- Poster #20** **NCOA4 IS WELL EXPRESSED IN MURINE AND HUMAN PERYIPHERAL BLOOD AND CORRELATES WITH AGE: A NEW MARKER OF IRON AMOUNT IN FRAIL ELDERLY PEOPLE?**
Rosa Maria Pellegrino, PhD¹, Antonietta Palmieri, Dr², Martina Boero, Dr², Gianluca Isaia, MD³, Mariarosa Mezzanotte, Dr², Giuseppe Saglio, MD², Angelo Guerrasio, MD² and Antonella Roetto, PhD²
¹University of Torino; ²University of Torino, Department of Clinical and Biological Sciences, AOU San Luigi Gonzaga, Torino, Italy; ³SCDU Geriatrics, AOU San Luigi Gonzaga Hospital, Orbassano, Turin, Italy
Presented By: Rosa Maria Pellegrino

- Poster #21** **IRON-RICH DIET DECREASES MYCOBACTERIAL (M. Bovis BCG) BURDEN AND CORRELATES WITH HEPcidIN UPREGULATION, LOWER PRO-INFLAMMATORY MEDIATORS AND HIGHER T CELL RECRUITMENT**
Rafiu Agoro, PhD², Stephanie Rose, MSc³, Irene Garcia, PhD⁴, Bernhard Ryffel, MD, PhD², Valerie Quesniaux, PhD² and Catherine Mura, PhD¹
¹CNRS/University Orleans; ²CNRS/University Orleans, France; ³CNRS, France; ⁴University of Geneva, Switzerland
Presented By: Catherine Mura, PhD
- Poster #22** **CELL IRON STATUS ATTENUATES PRO-INFLAMMATORY MACROPHAGE POLARIZATION**
Rafiu Agoro, PhD² and Catherine Mura, PhD¹
¹CNRS/University Orleans; ²CNRS/University Orleans, France
Presented By: Catherine Mura, PhD
- Poster #23** **FERROPORTIN DOWNREGULATION IN THE LIVER OF LEISHMANIA INFANTUM-INFECTED MICE THROUGH A HEPcidIN-INDEPENDENT MECHANISM**
Tania Cruz, PhD¹, Maria Vieira, Bachelor², Joana Passos, Master³, Helena Castro, PhD², Margarida Duarte, PhD², François Cannone-Hergaux, PhD⁴, Jorge Pinto, PhD³ and Ana Tomás, PhD²
¹I3S – Instituto de Investigação e Inovação em Saúde, Universidade do Porto; ²I3S; ³IBMC; ⁴CNRS
Presented By: Tania Cruz, PhD
- Poster #24** **THE ROLE OF HFE GENOTYPE IN MACROPHAGE PHENOTYPE**
Anne Nixon, Elizabeth Neely and James Connor
Penn State College of Medicine, Hershey Medical Center, Hershey, PA
Presented By: Anne Nixon, BS
- Poster #25** **ELUCIDATING THE ROLE OF IL6 AND REACTIVE OXYGEN SPECIES (ROS) IN BONE MARROW ERYTHROPOIESIS AND IN THE DEVELOPMENT OF ANEMIA UNDER INFLAMMATORY CONDITIONS**
Ritama Gupta¹, Roberta Chessa, PhD², Sara Gardenghi, PhD³, Ping La, PhD² and Stefano Rivella, PhD²
¹Children's Hospital of Philadelphia, University of Pennsylvania; ²Children's Hospital of Philadelphia; ³Weill Cornell Medical College
Presented By: Ritama Gupta, MSc
- Poster #26** **H-FERRITIN IS A MACROPHAGE HOST DEFENSE FACTOR AGAINST SALMONELLA INFECTION**
David Haschka, Dr¹, Piotr Tymoszek, PhD¹, Verena Petzer, Dr¹, Stefanie Dichtl, Mag¹, Dirk Bumann, Prof², Markus Seifert¹, Sylvia Berger¹, Lukas Kühn, Prof³, Igor Theurl, Prof¹ and Günter Weiss, Prof¹
¹Medical University of Innsbruck, Internal Medicine VI; ²University of Basel, Focal Area Infection Biology; ³Swiss Institute for Experimental Cancer Research
Presented By: David Haschka
- Poster #27** **RESTRICTION OF FE-S CLUSTER BIOGENESIS UNDERPINS THE METABOLIC AND EPIGENETIC REPROGRAMMING IN TOLL-LIKE RECEPTORS-STIMULATED MACROPHAGES**
Wing-Hang Tong, PhD, Nunziata Maio, PhD, De-liang Zhang, PhD and Tracey Rouault, MD
Eunice Kennedy Shriver National Institute of Child Health and Human Development, USA
Presented By: Wing-Hang Tong, PhD
- Poster #28** **NOVEL SPLICING SITE AND MISSENSE MUTATIONS CAUSE ACERULOPLASMINEMIA**
Marina Dorigatti Borges, BSc, Dulcinea Martins Albuquerque, BSc, PhD, Carolina Lanaro, BSc, PhD, Fernando Ferreira Costa, MD, PhD and Kleber Yotsumoto Fertrin, MD, PhD
University of Campinas
Presented By: Marina Dorigatti Borges, BSc
- Poster #29** **THE INFLUENCE OF IRON HOMEOSTASIS ON MICROGLIA FUNCTION**
Andreas Popp, Dr¹, Thomas Möller, Dr², Jessica Abele³ and Bernhard K. Mueller, PD Dr⁴
¹Abbvie Deutschland GmbH & Co. KG; ²Abbvie Inc., Neuroscience Foundational Discovery, Cambridge, USA; ³Abbvie Deutschland GmbH & Co. KG, Preclinical Safety, Ludwigshafen, Germany; ⁴Abbvie Deutschland GmbH & Co. KG, Neuroscience Discovery, Ludwigshafen, Germany
Presented By: Andreas Popp, Med. Vet
- Poster #30** **A ROLE FOR SEX AND A COMMON HFE GENE VARIANT IN BRAIN IRON UPTAKE**
James Connor, PhD, Kari Duck, PhD, Ian Simpson, PhD and Elizabeth Neely
Penn State Hershey Medical Center
Presented By: James Connor, PhD
- Poster #31** **THE ROLE OF THE BLOOD-BRAIN BARRIER IN MAINTAINING BRAIN IRON STATUS**
James Connor, PhD, Kari Duck, PhD and Ian Simpson, PhD
Penn State Hershey Medical Center
Presented By: James Connor, PhD

- Poster #32** **FERRITIN UPTAKE INTO THE DEVELOPING MOUSE BRAIN**
Brian Chiou, Elizabeth Neely and James Connor
Penn State Hershey College of Medicine
Presented By: Brian Chiou
- Poster #33** **EXOGENOUS α -SYNUCLEIN INDUCES INFLAMMATION AND ALTERS NON-TRANSFERRIN BOUND IRON UPTAKE GENES AND PROTEINS IN CELLS OF THE CENTRAL NERVOUS SYSTEM**
Veronika Kallo, BSc MRes, Vernon Skinner, BSc PhD, David Dexter, PhD and Surjit Kaila Singh Srail, PhD
University College London
Presented By: Veronika Kallo, BSc, MRes
- Poster #34** **COMPUTATIONAL MODELLING OF IRON TRANSPORT BETWEEN BLOOD CIRCULATION, BRAIN, AND DOPAMINERGIC NEURONS OF THE SUBSTANTIA NIGRA**
Vindy Tjendana Tjhin, MSc¹, Simon Mitchell, PhD², Elizabeth A. Milward, PhD³, Charles E. Hutchinson, MD¹, Michael J. Chappell, PhD¹ and Joanna F. Collingwood, PhD¹
¹University of Warwick; ²UCLA; ³University of Newcastle
Presented By: Vindy Tjendana Tjhin, MSc
- Poster #35** **ADVANCES IN X-RAY MICROSCOPY FOR THE ANALYSIS OF TRANSITION METALS IN THE BRAIN**
Joanna Collingwood, PhD¹, James Everett, PhD¹, Neil Telling, PhD² and Freddy Adams, PhD³
¹University of Warwick; ²Keele University; ³University of Antwerp
Presented By: Joanna Collingwood, MPhys, PhD
- Poster #36** **THE DISTRIBUTION OF IRON-RELATED PROTEINS IN INTRACEREBRAL HEMORRHAGE**
Lisa Juul Routhe, MSc¹, Torben Moos, Prof¹ and Guohua Xi, MD²
¹Aalborg University; ²University of Michigan
Presented By: Lisa Juul Routhe, MSc
- Poster #37** **LIVER IRON CONTENT BY MAGNETIC RESONANCE IN CHRONIC KIDNEY DISEASE AT THE START OF MAINTENANCE HEMODIALYSIS**
Patricia Carrilho, MD¹, Inês Santiago, MD², Marta Alves, MSc³, Pedro Fidalgo, MD⁴, Elsa Rodrigues, MD² and Bruno Rodrigues, MD⁴
¹Hospital Fernando Fonseca; ²Hospital Fernando Fonseca, Dept Radiology; ³Centro Hospitalar de Lisboa Central, Epidemiology and Statistics Office of the Research Unit; ⁴Hospital Fernando Fonseca, Dept Nephrology
Presented By: Patricia Carrilho, MD
- Poster #38** **PROTECTIVE EFFECT OF HISTIDINE AGAINST IRON-INDUCED TOXICITY IN HEK293 CELLS**
F. Schlottmann, MSc, M. Vera- Aviles, MSc and G.O. Latunde- Dada, PhD
Faculty of Life Sciences, Diabetes and Nutritional Sciences Division, King's College London, United Kingdom
Presented By: Mayra Vera- Aviles, MSc
- Poster #39** **HEMOGLOBIN UPTAKE AND INJURY IN RENAL DISTAL TUBULES**
Rachel van Swelm, PhD¹, Frank Verhoeven¹, Tom Gielkens¹, Frank Thévenod, PhD² and Dorine Swinkels, PhD¹
¹Radboud University Medical Center, Nijmegen, The Netherlands; ²University of Witten/Herdecke, Witten, Germany
Presented By: Rachel Van Swelm, PhD
- Poster #40** **INTRAVENOUS IRON OXIDE INJECTION WITH HIGH POTENCY AND SAFETY PROFILES IN IRON DEFICIENCY ANEMIA RAT MODEL IN VIVO**
Chih-Lung Chen, PhD, Wen-Yuan Hsieh, PhD, Yuan-Hung Hsu, PhD, Nina Wang, PhD and Shian-Jy Wang, PhD
MegaPro Biotech Company
Presented By: Chih-Lung Chen, PhD
- Poster #41** **HOW CAN RECENT INSIGHTS INTO IRON METABOLISM AND INFECTION HELP US OVERCOME THE GLOBAL BURDEN OF ANEMIA?**
Sant-Rayn Pasricha, MBBS, MPH, PhD, Andrew Armitage, Andrew Prentice and Hal Drakesmith
MRC Human Immunology Unit, MRC Weatherall Institute of Molecular Medicine, University of Oxford
Presented By: Sant-Rayn Pasricha, MBBS, MPH, PhD
- Poster #42** **IMPACT OF IRON DEFICIENCY DIAGNOSIS USING HEPCIDIN MS DOSAGE METHODS ON HOSPITAL STAY AND COSTS AFTER A PROLONGED ICU STAY: A MULTICENTER, RANDOMIZED, SINGLE-BLINDED TRIAL**
Sigismond Lasocki, MD, PhD¹, Herve Puy, MD, PhD², Thibaud Lefevre, MD, PhD², Gregoire Mercier, MD³, Constance Delaby, PhD³ and Sylvain Lehmann, MD, PhD³
¹CHU Angers; ²INSERM U1149; ³CHU de Montpellier
Presented By: Sigismond Lasocki, MD, PhD

- Poster #43** **DEVELOPMENT OF HUMAN SOLUBLE TRANSFERRIN RECEPTOR ELISA ASSAY**
Liubov Litvinkova, MS¹, Alexey Kravtsov, PhD², Matthias Herkert, PhD³, Ian Cushman, PhD⁴, Wilhelm Sanger, MBA⁵ and Cyril Geacintov, PhD⁶
¹DRG International, Inc.; ²Senior Research Scientist, DRG International, Inc.; ³Director R&D, DRG Instruments GMBH; ⁴Director R&D, DRG International, Inc.; ⁵General Manager, DRG Instruments GMBH; ⁶CEO, DRG International, Inc.
Presented By: Liubov Litvinkova
- Poster #44** **COMPARISON OF THE THERAPEUTICAL POTENTIAL OF ORAL SUCROSOMIAL® IRON AND PARENTERAL IRON DEXTRAN SUPPLEMENTATIONS IN NEONATAL IRON DEFICIENCY ANEMIA IN PIGS**
Rafał Starzyński, PhD¹, Mateusz Szudzik, MSc², Robert Staroń, MSc², Aneta Jończy, MSc², Ewa Smuda, MSc², Marek Pieszka, PhD³, Marian Kamyczek, PhD⁴ and Paweł Lipiński, PhD²
¹IGAB PAS; ²Institute of Genetics and Animal Breeding PAS, Jastrzębiec, Poland; ³Department of Animal Nutrition & Feed Science, National Research Institute of Animal Production, Kraków, Poland; ⁴Pig Hybridization Centre, National Research Institute of Animal Production, Pawłowice, Poland
Presented By: Paweł Lipiński, PhD, DSc
- Poster #45** **NEONATAL IRON DEFICIENCY ANEMIA IN PIGS: CAUSES, REGULATION OF IRON METABOLISM, AND STRATEGIES FOR IRON SUPPLEMENTATION THERAPY**
Paweł Lipiński, PhD¹, Rafał Starzyński, PhD², Robert Staroń, MSc², Anna Gajowiak, MSc², Ewa Smuda, MSc², Marek Pieszka, PhD³ and Małgorzata Lenartowicz, PhD⁴
¹IGAB PAS; ²Institute of Genetics and Animal Breeding PAS, Jastrzębiec, Poland; ³Department of Animal Nutrition & Feed Science, National Research Institute of Animal Production, Kraków, Poland; ⁴Department of Genetics and Evolution, Institute of Zoology, Jagiellonian University, Kraków, Poland
Presented By: Paweł Lipiński, PhD, DSc
- Poster #46** **PLACENTAL EXPRESSION OF IRON HOMEOSTASIS GENES IN IRON DEFICIENCY ANEMIA OF PREGNANCY**
Sreenithi Santhakumar, MTech¹, Rekha Athiyarath, PhD¹, Anne George Cherian, MD², Vinod Joseph Abraham, MD² and Eunice Sindhuvi Edison, PhD¹
¹Department of Haematology, Christian Medical College, Vellore, India; ²Department of Community Health, Christian Medical College, Vellore, India
Presented By: Eunice Sindhuvi Edison, PhD
- Poster #47** **DEFERASIROX AND PHLEBOTOMIES IN A PATIENT WITH EXTREME IRON OVERLOAD BY HEREDITARY HEMOCHROMATOSIS AND BETA-THALASSEMIA MINOR AFTER DIAGNOSIS OF LISTERIOSIS**
Alejandro Del Castillo-Rueda, Dolores Pulfer, Alejandra García-García and Ana López-Aparicio
Hospital Gregorio Marañón
Presented By: Alejandro Del Castillo-Rueda, MD, PhD
- Poster #48** **EVALUATING IRON METABOLISM AND SUPPLEMENTATION IN GAMBIAN TODDLERS USING A NOVEL, HIGH-PRECISION METHOD BASED ON THE DILUTION OF LABELLED BODY IRON**
Diego Moretti, MSc, PhD¹, Rita Wegmüller, MSc, PhD^{2,3}, Cornelia Speich, MSc¹, Christophe Zeder, MSc¹, Magdalena Cichucka, MSc¹, Colin Ivano Cercamondi, MSc, PhD¹, Andrew Prentice, MD, Professor^{2,3}, Gary Brittenham, MD, Professor and Michael Bruce Zimmermann, MD, Professor¹
¹ETH Zürich; ²MRC Unit, The Gambia; ³LSHTM, London, UK.
Presented By: Diego Moretti, PhD
- Poster #49** **EFFECT OF SUCROSOMIAL® IRON IN A IRON DEFICIENCY ANEMIA MOUSE MODEL**
Elisa Brilli, PhD¹, Maura Poli, PhD², Michela Asperti, PhD², Angela Fabiano, PhD³, Annalisa Castagna, PhD⁴, Domenico Girelli, MD⁴, Ylenia Zambito, PhD³, Paolo Arosio, PhD² and Germano Tarantino¹
¹Pharmanutra S.p.A.; ²DMMT, University of Brescia; ³Pharmacological Sciences, University of Pisa; ⁴Internal Medicine, University of Verona
Presented By: Germano Tarantino
- Poster #50** **EFFECTS OF BONE MARROW IRON ON BONE MINERAL DENSITY ASSESSMENTS: A PHANTOM STUDY**
Marcela Weyhmler, PhD¹, Neil Buac², Ellen Fung, PhD RD¹, Ashutosh Lal, MD¹ and Roland Fischer, PhD³
¹UCSF Benioff Children's Hospital Oakland; ²California State University, East Bay; ³UCSF Benioff Children's Hospital Oakland/UKE – Pediatric Hematologie/Onkologie
Presented By: Marcela G. Weyhmler, PhD
- Poster #51** **HFE GENOTYPE ALTERS EXOSOME PROFILES IN CANCER**
Oliver Mrowczynski, A.B. Madhankumar, PhD, Brad Zacharia, MD, MS, Becky Slagle-Webb, BS and James Connor, PhD
Penn State Hershey
Presented By: Oliver Mrowczynski
- Poster #52** **ANALYSIS OF SINGLE NUCLEOTIDE VARIATION OF HFE GENE FOR CANCER RISK AND ASSOCIATION TO SURVIVAL IN THE CANCER GENOME ATLAS (TCGA) GBM DATA**
Sang Lee, Junjia Zhu, Anna Salzberg, Bo Zhang, Dajiang Liu and James Connor
Penn State University College of Medicine
Presented By: Sang Lee, PhD

- Poster #53** **FERROPORTIN INDUCES IRON DEPLETION, AUTOPHAGY, AND CELL CYCLE ARREST IN PROSTATE CANCER CELLS OF DIFFERENT HISTOPATHOLOGICAL SUBTYPES**
Suzy Torti, PhD, Zhiyong Deng, PhD, David Manz, BS and Frank Torti, MD
University of Connecticut Health Center
Presented By: Suzy Torti, PhD
- Poster #54** **DCYTB IS A PREDICTOR OF OUTCOME IN BREAST CANCER THAT FUNCTIONS VIA IRON-INDEPENDENT MECHANISMS**
Frank Torti, MD¹, David Lemler, PhD², Miranda Lynch, PhD³, Lia Tesfay, MS¹, Zhiyong Deng, PhD¹, Bibbin Paul, PhD¹, Poonima Hegde, MD¹ and Suzy Torti, PhD¹
¹University of Connecticut Health Center; ²University of Connecticut Health Center; ³Los Alamos National Laboratory
Presented By: Frank Torti, MD
- Poster #55** **APOPTOTIC EFFECT OF FENUGREEK ON MCF-7 CELLS IS INHIBITED BY FERRITIN**
Kholoud Khoja¹ MSc, PhD, Paul Sharp² PhD and Yemisi Latunde-Dada² PhD
¹King's College London; ²King's College London
Presented By: Kholoud Khoja, PhD
- Poster #56** **ADMINISTRATION OF MINIHEPCIDINS TO ANIMALS AFFECTED BY β -THALASSEMIA MAJOR REDUCES ANEMIA AND SPLENOMEGALY**
Roberta Chessa, PhD¹, Ritama Gupta², Carla Casu, PhD², Robert Fleming, MD³, Yelena Ginzburg, MD⁴, Brian MacDonald, MD⁵ and Stefano Rivella, PhD²
¹The Children's Hospital of Philadelphia; ²The Children's Hospital of Philadelphia; ³Saint Louis University; ⁴Icahn School of Medicine at Mount Sinai; ⁵Merganser Biotech
Presented By: Roberta Chessa, PhD
- Poster #57** **THRESHOLD FERRITIN VALUES TO PREDICT CONTROL OF LIVER IRON BURDEN IN THALASSEMIA**
Ashutosh Lal, MD, Marcela Weyhmler, PhD and Elliott Vichinsky, MD
UCSF Benioff Children's Hospital Oakland
Presented By: Ashutosh Lal, MD
- Poster #58** **DIFFERENTIAL OXIDATIVE STRESS AND ENDOTHELIAL DYSFUNCTION RESPONSES INDUCED BY BRAND AND GENERIC SODIUM FERRIC GLUCONATE COMPLEX FORMULATIONS**
Amy Pai, PharmD¹, Paul Neumann, BS² and Teresa Regis, BS²
¹University of Michigan College of Pharmacy; ²Albany College of Pharmacy and Health Sciences
Presented By: Amy Pai, PharmD
- Poster #59** **BIOEQUIVALENCE EVALUATION OF GENERIC INTRAVENOUS IRON PRODUCTS-IMPLICATIONS OF LABILE IRON RELEASE**
Amy Pai, PharmD¹, Dan Meyer, PhD², Brian Bales, PhD², Victoria Cotero, PhD² and Manjunath Pai, PharmD¹
¹University of Michigan College of Pharmacy; ²General Electric Global Research
Presented By: Amy Pai, PharmD
- Poster #60** **EXERCISE-INDUCED DECREASE IN HEPATOCELLULAR IRON OVERLOAD IMPROVES INSULIN SENSITIVITY IN AGED RATS**
yuqian liu¹, Haitao Wang, PhD², Yingjun Zhang² and Yanzhong Chang, PhD³
¹College of Physical Education; ²College of Physical Education, Hebei Normal University; ³Laboratory of Molecular Iron Metabolism, College of Life Science, Hebei Normal University
Presented By: Yuqian Liu, PhD
- Poster #61** **HEPCIDIN- FERRITIN RATIO IS DECREASED IN DIABETES MELLITUS**
Molly Jacob, MBBS, MD, PhD¹, Padmanaban Venkatesan, MBBS², Joe Varghese, MBBS, MD, DNB², Jithu James, MSc² and Jasmin Prasad, MBBS, MD²
¹Christian Medical College, Vellore, India; ²Christian Medical College, Vellore, India
Presented By: Molly Jacob, MD, PhD, MBBS
- Poster #62** **DIET-INDUCED INSULIN RESISTANCE IN MICE IS ASSOCIATED WITH DECREASED LEVELS OF LIVER IRON AND SERUM HEPcidIN**
Joe Varghese, MBBS, MD, Jithu Varghese James, MSc and Molly Jacob, MBBS, MD, PhD
Department of Biochemistry, Christian Medical College, Vellore, India
Presented By: Joe Varghese, MD
- Poster #63** **HYPERFERRITINEMIA INCREASES THE RISK OF HYPERURICEMIA IN PATIENTS WITH GENETIC HEMOCHROMATOSIS RELATED TO P.CYS282TYR MUTATION IN THE HFE GENE**
Jeremy Flais, MD², Edouard Bardou- Jacquet, MD, PhD³, Yves Deugnier, MD³, Guillaume Coiffier, MD², Aleth Perdriger, MD, PhD², Gérard Chalès, MD², Martine Ropert, MD⁴, Olivier Loreal, MD, PhD¹ and Pascal Guggenbuhl, MD, PhD²
¹INSERM UMR991; ²Department of Rheumatology; ³Liver Disease Unit; ⁴Department of Biochemistry, Rennes University Hospital, France
Presented By: Olivier Loreal, MD, PhD

- Poster #64** **HEPCIDIN KNOCK-OUT MICE DEVELOP LESS INSULIN RESISTANCE THAN WILD-TYPE MICE WHEN FED A HIGH-FAT DIET**
 Jithu James, MSc, Joe Varghese, Sophie Vaulont and Molly Jacob
 Christian Medical College, Vellore, India
 Presented By: Jithu James, MSc
- Poster #65** **PROTEIN LEVELS OF IRON HOMEOSTASIS RELATED MOLECULES IN SKELETAL MUSCLE TISSUE IN VEGAN POPULATION**
 Kamila Balusikova, Jan Gojda, David Albrecht, Jana Patockova, Jan Kovar and Michal Andel
 3rd Faculty of Medicine, Charles University
 Presented By: Kamila Balusikova
- Poster #66** **THE DIVERSE ROLES OF SIDEROCALIN / NGAL / LCN2 IN ANTI-BACTERIAL IRON SEQUESTRATION, CANCER, AND CLINICAL APPLICATION**
 Colin Correnti, PhD, Peter Rupert, PhD and Roland Strong, PhD
 Fred Hutchinson Cancer Research Center
 Presented By: Roland Strong, PhD
- Poster #67** **THE ROLES OF THE THREE IRON-STORAGE PROTEINS OF ESCHERICHIA COLI IN SUPPORTING LOW-IRON GROWTH AND REDOX STRESS RESISTANCE**
 Afrah Salman, PhD student and Simon Andrews, Professor
 The University of Reading
 Presented By: Ahmad Salman, MBBS, MCOS
- Poster #68** **A STUDY OF NCOA4 EXPRESSION AND BINDING TO FERRITINS**
 Magdalena Gryzik, PhD student, Fernando Carmona, PhD, Maura Poli, PhD and Paolo Arosio, PhD
 Department of Molecular and Translational Medicine, University of Brescia, Italy
 Presented By: Magdalena Gryzik
- Poster #69** **THE HYDROPHOBIC IRON CHELATOR DESFERRIOXAMINE-CAFFEINE, DFCAF**
 Jesus Antonio Alvarado Huayhuaz, Hector Aguilar Vitorino, Othon Souto Campos, Silvia Helena Pires Serrano, Telma Mary Kaneko and Breno Esposito
 University of Sao Paulo
 Presented By: Breno P. Esposito
- Poster #70** **PHARMACOKINETICS (PK) OF FERRIC PYROPHOSPHATE CITRATE (TRIFERIC): MODELING DIURNAL IRON AND ADDITIVITY OF TRIFERIC IN HEALTHY VOLUNTEERS IRON**
 Raymond Pratt, MD¹, Mark Bush, PhD², Scott Brantley, PhD² and Ajay Gupta, MD¹
¹Rockwell Medical Inc; ²Nuventra Inc.
 Presented By: Raymond D. Pratt, MD
- Poster #71** **CRISPR-CAS9 GENOME-WIDE KNOCKOUT SCREENING IDENTIFIES MOLECULAR COMPONENTS INVOLVED IN CELLULAR IRON UPTAKE**
 Amin Sobh, Alex Loguinov, PhD and Chris Vulpe, MD, PhD
 University of California, Berkeley
 Presented By: Amin Sobh
- Poster #72** **DNA METHYLATION REGULATES THE EXPRESSION OF TRANSFERRIN RECEPTOR 2**
 Paul Sharp¹, Robert Weeks² and Ian Morison²
¹King's College London; ²University of Otago, New Zealand
 Presented By: Paul A. Sharp
- Poster #73** **LC- ICP- MS CHARACTERIZATION OF NON-TRANSFERRIN-BOUND IRON**
 Nathaniel Dziuba, BS, Joanne Hardy, PhD, DVM and Paul Lindahl, PhD
 Texas A&M University
 Presented By: Paul Lindahl, PhD
- Poster #74** **ERYTHROID CELL MITOCHONDRIA RECEIVE ENDOSOMAL IRON BY A "KISS-AND-RUN" MECHANISM**
 Amel Hamdi, PhD¹, Daniel Garcia-Santos, PhD¹, Tariq Roshan, MD¹, Alex Sheftel, PhD² and Prem Ponka, MD, PhD¹
¹McGill University, Lady Davis Institute, Montreal, Canada; ²Spartan Bioscience Inc, Ottawa, Canada
 Presented By: Amel Hamdi, PhD
- Poster #75** **SPECIATION OF NON-TRANSFERRIN BOUND IRON IN BLOOD PLASMA OF IRON DEFICIENT SWINE**
 Nathaniel Dziuba, Joanne Hardy and Paul A. Lindahl
 Texas A&M University
 Presented By: Nathaniel Dziuba, BA

- Poster #76** **TISSUE-AUTONOMOUS REGULATION OF RETINAL IRON TRANSPORT**
 Joshua Dunaief, MD, PhD, Ying Song, MD, Delu Song, MD, PhD, Bailey Baumann, BA, Milan Theurl, MD, Paul Hahn, MD, PhD, Majda Hadziahmetovic, MD and Natalie Wolkow, MD, PhD
 FM Kirby Center for Molecular Ophthalmology, Scheie Eye Institute, Perelman School of Medicine, University of Pennsylvania
 Presented By: Joshua L. Dunaief, MD, PhD
- Poster #77** **REVERSAL OF IRON OVERLOAD IN TRANSFERRIN-DEFICIENT MICE**
 Thomas Bartnikas, MD PhD, Courtney Mercadante, Michael Pettiglio, Carolina Herrera, Miriam Dash, Julia Bu and Edward Stopa, MD
 Brown University
 Presented By: Thomas Bartnikas, MD, PhD
- Poster #78** **THE FATE OF TRANSFERRIN BOUND TO IRON OXIDE NANOPARTICLES IN VITRO AND IN VIVO**
 Denise Bargheer, PhD, Julius Nielsen, Artur Giemsa, PhD, Barbara Freund, PhD and Peter Nielsen, MD, PhD
 University Medical Centre Hamburg, Dept. of Biochemistry and Molecular Cell Biology
 Presented By: Peter Nielsen, MD, PhD
- Poster #79** **A DOMINANT MUTATION IN MITOCHONDRIAL UNFOLDASE CLPX RESULTS IN ERYTHROPOIETIC PROTOPORPHYRIA**
 Barry Paw, MD, PhD¹, Yvette Yien, PhD¹, Gael Nicolas, PhD², Lisa van der Vorm, MS¹, Laurent Gouya, PhD², Hector Bergonia, PhD³, Martin Kafina, MS¹, Julia Kardon, PhD⁴, Tania Baker, PhD⁴, John Phillips, PhD³ and Herve Puy, MD, PhD²
¹Harvard Medical School; ²INSERM U1149, Paris; ³Univ. Utah; ⁴MIT
 Presented By: Barry H Paw, MD, PhD
- Poster #80** **ERYTHROPOIETIN SIGNALING REGULATES HEME BIOSYNTHESIS**
 Barry Paw, MD, PhD¹, Jacky Chung, PhD¹, Johannes Wittig, MS¹, Alireza Ghamari, PhD¹, Manami Maeda, MD, PhD⁵, Tamara Dailey², Hector Bergonia³, Martin Kafina, MS¹, Liangtao Li, MD³, Jerry Kaplan, PhD³, Harvey Lodish, PhD⁴, Daniel Bauer, MD, PhD¹, Stuart Orkin, MD¹, Alan Cantor, MD, PhD¹, Takahiro Maeda, MD, PhD⁵, John Phillips, PhD³, Joshua Coon, PhD⁶, David Pagliarini, PhD⁶ and Harry Dailey, PhD²
¹Harvard Medical School; ²Univ. Georgia; ³Univ. Utah; ⁴MIT; ⁵Fukuoka, Japan; ⁶Univ. Wisconsin, Madison
 Presented By: Barry H. Paw, MD, PhD
- Poster #81** **FUNCTIONAL ANALYSIS OF HETEROZYGOUS GATA1 DELETERIOUS MUTATIONS IN TWO CHINESE FEMALE PATIENTS AFFECTED BY DYSERYTHROPOIETIC ANEMIA, THROMBOCYTOPENIA AND PORPHYRIA, RESPECTIVELY**
 Yongwei Wang, BS¹, Gang Liu, PhD^{1,4}, Shanshan Guo, BS¹, Bing Han, MD², Yanzhong Chang, PhD³ and Guangjun Nie, PhD¹
¹CAS Key Laboratory for Biomedical Effects of Nanomaterials and Nanosafety, CAS Center for Excellence in Nanoscience, National Center for Nanoscience and Technology, Beijing, China; ²Department of Hematology, Peking Union Medical College Hospital, Chinese Academy of Medical Sciences and Peking Union Medical College, Beijing, China; ³Laboratory of Molecular Iron Metabolism, College of Life Science, Hebei Normal University, Shijiazhuang, Hebei Province, China; ⁴Section on Human Iron Metabolism, NIH, Bethesda, MD
 Presented By: Yongwei Wang, BS
- Poster #82** **PHARMACOLOGICAL ACTIVATION OF IRE-BINDING OF IRON REGULATORY PROTEIN1 BY TEMPOL PROTECTS VhIR200W MUTANT MICE FROM POLYCYTHEMIA THROUGH TRANSLATIONAL REPRESSION OF Hif2a**
 Manik Ghosh, PhD, De-Liang Zhang, PhD, Wade Ollivierre and Tracey Rouault, MD
 Molecular Medicine Branch, Eunice Kennedy Shriver National Institute of Child Health and Human Development, NIH
 Presented By: Manik Ghosh, PhD
- Poster #83** **CARBON NANOTUBES DISRUPT IRON HOMEOSTASIS AND INDUCE ANEMIA OF INFLAMMATION THROUGH INFLAMMATORY PATHWAY AS A SECONDARY EFFECT DISTANT TO THEIR PORTAL-OF-ENTRY**
 Juan Ma, PhD and Sijin Liu
 Research Center for Eco-Environmental Sciences, Chinese Academy of Sciences
 Presented By: Juan Ma
- Poster #84** **GENERATION OF INDUCED PLURIPOTENT STEM CELL-DERIVED ERYTHROBLASTS FROM A PATIENT WITH X-LINKED SIDEROBLASTIC ANEMIA**
 Shunsuke Hatta, MD, PhD¹, Tohru Fujiwara¹, Takako Yamamoto, MD, PhD², Mayumi Kamata, MD, PhD¹, Yoshiko Tamai, MD, PhD³, Yukio Nakamura, MD, PhD⁴, Shin Kawamata, MD, PhD² and Hideo Harigae, MD, PhD¹
¹Tohoku University Graduate School of Medicine; ²Foundation of Biomedical Research and Innovation; ³Hirosaki University Graduate School of Medicine; ⁴RIKEN BioResource Center
 Presented By: Tohru Fujiwara, MD, PhD

- Poster #85** **THE INTERPLAY OF GATA1 WITH HEME REGULATES AN ERYTHROID CELL'S DIFFERENTIATION**
Raymond Doty, PhD¹, Xiaowei Yan, PhD², Christopher Lausted, MS², Zhantao Yang, MD¹, Li Liu, PhD¹, Neda Jabbari, PhD², Sioban Keel, MD¹, Qiang Tian, MD, PhD² and Janis Abkowitz, MD¹
¹University of Washington; ²Institute for Systems Biology
Presented By: Raymond Doty, PhD
- Poster #86** **GLUTATHIONE AND THE CYTOSOLIC HEME POOL**
Robert Hider, BSc, PhD¹, Yu-Lin Chen, PhD², Rosemary Rawlinson, BSc² and Yemisi Latunde-Dada, PhD²
¹King's College London; ²KCL
Presented By: Robert Hider, BSc, PhD
- Poster #87** **ERYTHROPOIETIN INCREASES BONE AND CIRCULATING FGF23 LEVELS**
Mark Hanudel, MD, MS¹, Maxime Rappaport, BS², Kristine Chua, BS², Erica Clinkenbeard, PhD³, Victoria Gabayan, BS², Tomas Ganz, MD, PhD², Kenneth White, PhD³, Isidro Salusky, MD² and Elizabeta Nemeth, PhD²
¹UCLA Pediatric Nephrology; ²David Geffen School of Medicine at UCLA; ³Indiana University School of Medicine
Presented By: Mark Hanudel, MD, MS
- Poster #88** **DYSREGULATED IRON METABOLISM IN BONE MARROW FROM A MOUSE MODEL OF CHRONIC KIDNEY DISEASE (CKD): HEPCIDIN AND ERYTHROPOIESIS**
Takeshi Nakanishi, MD, PhD, Tomoko Kimura, MD, Kiyoko Yamamoto, MD, Masayoshi Nanami, MD, PhD and Takahiro Kuragano, MD, PhD
Hyogo College of Medicine
Presented By: Takeshi Nakanishi, MD, PhD
- Poster #89** **INVESTIGATING THE ROLE OF HRG1 IN HEME TRANSPORT**
Rini Pek¹, Jianbing Zhang, M Sc¹, Nicole Rietzschel, PhD¹, John Phillips, PhD², David Bodine, PhD³ and Iqbal Hamza, PhD¹
¹University of Maryland; ²University of Utah; ³National Human Genome Research Institute
Presented By: Rini Pek, BA
- Poster #90** **THE HEME EXPORTER FLVCR1a IS CRUCIAL FOR BRAIN DEVELOPMENT**
Deborah Chiabrando¹, Tullio Genova², Francesca Bertino¹, Lorenzo Silengo¹, Fiorella Altruda¹ and Emanuela Tolosano¹
¹Department of Molecular Biotechnology and Health Sciences, Molecular Biotechnology Center, University of Torino, Torino, Italy.; ²Department of Surgical Sciences, CIR Dental School, University of Turin,
Presented By: Deborah Chiabrando, PhD
- Poster #91** **EXPLORING POTENTIAL MEDIATORS OF EARLY HEPCIDIN DOWNREGULATION BY ERYTHROPOIETIN IN VIVO**
Irene Artuso, Antonella Nai, Mariateresa Pettinato, Silvia Colucci, Clara Camaschella and Laura Silvestri
San Raffaele Scientific Institute
Presented By: Irene Artuso
- Poster #92** **MOUSE STRAIN DIFFERENCES IN THE RESPONSE TO TREATMENT WITH A HEMOJUVELIN NEUTRALIZING MONOCLONAL ANTIBODY**
Andreas Popp, Dr¹, Melissa Matzelle, Dr² and Bernhard K. Mueller, PD Dr³
¹Abbvie Deutschland GmbH & Co. KG; ²Abbvie Inc., Foundational Immunology; ³Abbvie Deutschland GmbH & Co. KG, Neuroscience Discovery
Presented By: Andreas Popp, Med. Vet
- Poster #93** **VALPROIC ACID AND SHORT CHAIN FATTY ACIDS BUTYRATE AND PROPIONATE MAY INDUCE HEPCIDIN MRNA EXPRESSION IN HEPATIC CELLS**
Marie-Laure Island, PhD², Amandine Gaudin, MsC, Thibault Cavey, MD, Patricia Leroyer, Martine Ropert, MD, Pierre Brissot, MD and Olivier Loréal, MD, PhD¹
¹INSERM UMR991; ²INSERM UMR991, Rennes, France
Presented By: Olivier Loreal, MD, PhD
- Poster #94** **SUPPRESSION OF ERYTHROPOIESIS IN THE MOUSE MODEL MIMICKING REPEATED-TRANSFUSION INDUCED IRON OVERLOAD**
Masayo Yamamoto, MD, PhD¹, Hiroki Tanaka, PhD², Masatomo Ishioh, MD¹, Takeshi Saito, MD¹, Yasumichi Toki, MD, PhD¹, Mayumi Hatayama, MD¹, Motohiro Shindo, MD, PhD¹, Katsuya Ikuta, MD, PhD¹, Yoshihiro Torimoto, MD, PhD³ and Toshikatsu Okumura, MD, PhD¹
¹Division of Gastroenterology & Hematology/Oncology, Asahikawa Medical University; ²Division of Legal Medicine, Asahikawa Medical University; ³Oncology Center, Asahikawa Medical University Hospital
Presented By: Masayo Yamamoto, MD, PhD
- Poster #95** **PREVENTION OF IRON TOXICITY FROM HEME CATABOLISM IS LINKED TO COPPER-MEDIATED REGULATORY EVENTS**
Ann Smith, PhD¹, Kim Rish, BS MS², LokMan Sung, BS MD², Rachel Helston, BS PhD³ and Roberto Vanacore, BS PhD⁴
¹SBS-UMKC; ²University of Missouri-Kansas City; ³Stowers Institute for Medical Research; ⁴Vanderbilt University
Presented By: Ann Smith, BSc, PhD

- Poster #96** **TRIPHENYLPHOSPHONIUM–DEFERRIOXAMINE AS A CANDIDATE MITOCHONDRIAL IRON CHELATOR**
 Roxana Yesenia Pastrana Alta, Hector Vitorino, Simon Wisnovsky, Shana Kelley, M. Teresa Machini and Breno Esposito
 University of Sao Paulo
 Presented By: Breno P. Esposito
- Poster #97** **WITHDRAWN**
- Poster #98** **CHANGES OF “IRON GENE” SIGNATURE RESPONSIBLE FOR EMBRYONIC STEM CELL STEMNESS AND DIFFERENTIATION**
 Jing Liu and Sijin Liu
 Research Center for Eco-Environmental Sciences, Chinese Academy of Sciences
 Presented By: Jing Liu
- Poster #99** **A TRIPEPTIDE MOTIF– LEU– TYR– ARG (LYR) PLAYS A SIGNIFICANT ROLE IN Fe–S CLUSTER ACQUISITION BY CELLULAR PROTEINS**
 Anshika Jain, PhD¹, Anamika Singh, MS², Nunziata Maio, PhD² and Tracey Rouault, MD²
¹NIH; ²NICHD/NIH
 Presented By: Anshika Jain, PhD
- Poster #100** **SHORT– ACTING MUCOSAL BLOCK AND FERRITIN–INDEPENDENT ANTIOXIDATIVE SYSTEM WORKS IN THE IRON–DEFICIENT RATS DUODENUM**
 Shoko Shinoda, PhD, Machiko Yamamoto, MS and Anna Arita, MS
 Tokyo Metropolitan University
 Presented By: Shoko Shinoda, PhD
- Poster #101** **GENETIC ANALYSIS OF SURVIVAL OF SALMONELLA ENTERICA SEROTYPE ENTERITIDIS IN EGG WHITE; IMPACT TO IRON RESTRICTION AND LYSOZYME**
 Abdulameer Ghareeb, PhD student¹, Pauline Sabrou², Sophie Jan², Florence Baron² and Simon Andrews, Professor
¹The University of Reading; ²Agrocampus Ovest
 Presented By: Abdulameer Ghareeb
- Poster #102** **INCREASED DUODENAL IRON ABSORPTION IN PATIENTS WITH CHRONIC HEPATITIS C AND NONALCOHOLIC STEATOHEPATITIS**
 Koji Miyanishi, Masanori Sato, Shingo Tanaka, Akira Sakurada, Hiroki Sakamoto, Yutaka Kjawano, Toshifumi Hoki, Masayoshi Kobune and Junji Kato
 Department of Medical Oncology, Sapporo Medical University. School of Medicine
 Presented By: Koji Miyanishi, MD, PhD
- Poster #103** **THE NOVEL FINDING OF ELTROMBOPAG (ELT) IMPROVING PANCREATIC CELL FUNCTION BY INCREASING INSULIN PRODUCTION, CHELATING IRON AND SCAVENGING ROS**
 Evangelia Vlachodimitropoulou, MBBS, BSc, P. Koonosyng, N. Cooper, B. Psaila, M. Sola-Visner and J. Porter UCI
 Presented By: Evangelia Vlachodimitropoulou, MBBS, BSc
- Poster #104** **NEW FILM–COATED TABLET FORMULATION OF DEFERASIROX IS WELL TOLERATED IN PATIENTS WITH THALASSEMIA OR MYELODYSPLASTIC SYNDROMES: RESULTS OF THE RANDOMIZED, PHASE II ECLIPSE STUDY**
 Ali T. Taher¹, Raffaella Origa², Silverio Perrotta³, Alexandra Kouraklis⁴, Giovan Battista Ruffo⁵, Antonis Kattamis⁶, Ai– Sim Goh⁷, Annelore Cortoos⁸, Vicky Huang⁸, Marine Weill⁹, Raquel Merino Herranz⁹ and John B. Porter¹⁰
¹American University of Beirut Medical Center; ²University of Cagliari; ³Second University of Naples; ⁴University of Patras Medical School; ⁵U.O.C. Ematolog. Con Talassemia; ⁶University of Athens; ⁷Hospital Pulau Pinang; ⁸Novartis Pharmaceuticals Corporation; ⁹Novartis Pharma AG; ¹⁰University College London
 Presented By: John B. Porter, MA, MD, FRCP DRCPath
- Poster #105** **RENAL SAFETY AFTER MORE THAN A DECADE OF DEFERASIROX USE IN PATIENTS WITH TRANSFUSIONAL HEMOSIDEROSIS**
 Raffaella Origa¹, Antonio Piga², Immacolata Tartaglione³, Giuseppina Della Corte⁴, Andreas Bruederle⁵, Jackie Han⁶, Chiara Castiglioni⁷ and Gian Luca Forni⁸
¹University of Cagliari; ²University of Turin; ³Second University of Naples; ⁴Università di Milano; ⁵Novartis Pharma AG; ⁶Novartis Pharmaceuticals Corporation; ⁷Novartis Farma SpA; ⁸Ospedale Galliera
 Presented By: Antonio Piga, MD
- Poster #106** **MEASUREMENT OF HEPCIDIN ISOFORMS IN HUMAN SERUM BY LIQUID CHROMATOGRAPHY WITH HIGH RESOLUTION MASS SPECTROMETRY (LC– HR– MS)**
 Simon Handley¹, Lewis Couchman, MSc¹, Paul Sharp, PhD², Iain Macdougall, PhD³ and Cajé Moniz, PhD⁴
¹Toxicology Unit, Viapath Analytics; ²Diabetes and Nutritional Sciences Division, King's College London; ³Department of Renal Medicine, King's College Hospital; ⁴Department of Clinical Biochemistry, King's College Hospital
 Presented By: Simon Handley

- Poster #107** **HEPCIDIN ISOFORM CONCENTRATIONS IN SERUM SAMPLES FROM PATIENTS WITH CHRONIC KIDNEY DISEASE**
Simon Handley¹, Paul Sharp, PhD², Caje Moniz, PhD³ and Iain Macdougall, PhD⁴
¹Toxicology Unit, Viapath Analytics; ²Diabetes and Nutritional Sciences Division, King's College London;
³Department of Clinical Biochemistry, King's College Hospital; ⁴Department of Renal Medicine, King's College Hospital
Presented By: Simon Handley
- Poster #108** **HEPCIDIN IS AN HDAC3 REGULATED GENE AND ITS EXPRESSION IS DETERMINED BY PROMOTER- ASSOCIATED HISTONE ACETYLATION**
Sant-Rayn Pasricha, MBBS, MPH, PhD, Pei Jin Lim, Tiago Duarte, Carla Casu, Kasia Mleczko-Sanecka, Maria Suci, Joao Areas, Ana Rita Da Silva, Joe Frost, Kirsty McHugh, Graca Porto, Simon Draper, Sarah Gooding, Peter Olinga, Martina Muckenthaler, Stefano Rivella, Jim Hughes, Tom Milne, Andrew Armitage and Hal Drakesmith
MRC Human Immunology Unit, MRC Weatherall Institute of Molecular Medicine, University of Oxford
Presented By: Sant-Rayn Pasricha, MBBS, MPH, PhD
- Poster #109** **THE ROLE OF HEPCIDIN IN RENAL FAILURE**
Alejandra García¹, Ana Lopez, Resident², Maria Dolores Pulfer, Resident², Maria Josefa Moran, Ph², Maria Isabel Moreno, Ph² and Alejandro Del Castillo, Staff²
¹University Hospital Gregorio Marañón; ²Gregorio Marañón University Hospital
Presented By: Alejandra Garcia
- Poster #110** **IS HEPCIDIN AN INFECTION MARKER?**
Maria Dolores Pulfer¹, Ana López, Resident², Alejandra García, Resident², Maria Josefa Moran, Ph², Maria Isabel Moreno, Ph² and Alejandro Del Castillo, staff²
¹Gregorio Marañón University Hospital; ²University Hospital Gregorio Marañón
Presented By: Maria Dolores Pulfer
- Poster #111** **FERROPORTIN Q248H MUTATION INDUCES AUTOPHAGY AND FERRITINOPHAGY**
Guelaguetza Vazquez- Ortiz, PhD, Andrey Ivanov, MD, PhD, Xionghao Lin, PhD, Namita Kumari, PhD and Sergei Nekhai, PhD
Howard University
Presented By: Sergei Nekhai, PhD
- Poster #112** **TP- 0184 IS AN INHIBITOR OF ALK2 AND A POTENTIAL THERAPEUTIC FOR THE TREATMENT OF ANEMIA OF CHRONIC DISEASE**
Peter Peterson, PhD, Wontak Kim, BS, Hillary Haws, MS, Clifford Whatcott, PhD, Adam Siddiqui-Jain, PhD, David Bearss, PhD and Steven Warner, PhD
Tolero Pharmaceuticals, Inc.
Presented By: Clifford Whatcott, PhD
- Poster #113** **MATERNAL HEPCIDIN DETERMINES FETAL IRON HOMEOSTASIS DURING PREGNANCY**
V. Sangkhae, A.L. Fisher, K. Chua, V. Gabayan, E. Valore, T. Ganz and E. Nemeth
University of California, Los Angeles
Presented By: Veena Sangkhae, PhD
- Poster #114** **DEVELOPMENTAL ROLES FOR THE IRP1-HIF2A AXIS AND IRP1 ALONE IN THE CONTROL OF ERYTHROPOIESIS AND IRON METABOLISM**
Gretchen Seim, James Votava, Chris Nizzi and Rick Eisenstein
University of Wisconsin-Madison
Presented By: Richard Eisenstein, PhD
- Poster #133** **EFFECTS OF BRAIN TISSUE PROCESSING ON SENSITIVITY OF DAB-ENHANCED PERL'S METHOD FOR IRON STAINING**
Moores Heidari, PhD, Kristy Martin, Daniel M. Johnstone, Ritambhara Aryal, Shanmathi Parameswaran, Linh Lim, Roberto Cappai, Samantha Richardson and Elizabeth A. Milward
University of Newcastle
Presented By: Moores Heidari, MSc
- Poster #142** **IRIDA DUE TO HETEROZYGOUS MUTATIONS OF TMPRSS6 AND ACVR1A ENCODING THE BMP RECEPTOR ALK2**
Alessia Pagani, Silvia Colucci, Renata Bocciardi, Roberto Ravazzolo, Laura Silvestri and Clara Camaschella
Vita Salute University and Division of Genetics and Cell Biology, San Raffaele Scientific Institute Milano, Italy
Presented By: Alessia Pagani, PhD
- Poster #LB1** **MORE HARM THAN HELP: DOES EARLY-LIFE IRON EXPOSURE INCREASE THE RISK OF AGE-RELATED NEURODEGENERATION?**
Dominic Hare, PhD
The Florey Institute of Neuroscience and Mental Health
Presented By: Dominic Hare, PhD

- Poster #LB2** **NANOSTRUCTURED IRON COMPOUNDS FOR NUTRITION – IN VITRO AND IN VIVO ASSESSMENT OF SAFETY AND ABSORPTIVE PATHWAYS**
Hans Christian Winkler, DVM, PhD, Lea M. von Moos, PhD, Julian Kornprobst, MSc, Mirjam Schneider, Florentine M. Hilty, PhD, Monika Hilbe, DVM, Myrtha Arnold, Nathalie Ziegler, Diogo Sales Mato, Elisabeth M. Schraner, Peter Wick, PhD, Barbara Bathke, Shana J. Sturla, PhD, Ioannis A. Trantakis, PhD, Hubertus Hochrein, PhD, Wolfgang Langhans, DVM, Mark Suter, DVM, Hanspeter Naegeli, DVM and Michael B. Zimmermann, MD, MSc
Swiss Federal Institute of Technology ETH, Laboratory of Human Nutrition
Presented By: Hans Winkler
- Poster #LB3** **WITHDRAWN**
- Poster #LB4** **EFFECT OF A NOVEL ORALLY ACTIVE IRON CHELATOR: 1– (N– ACETYL– 6– AMINOHEXYL)– 3– HYDROXY– 2– METHYLPYRIN– 4– ONE (CM1) IN IRON– OVERLOADED AND NON– OVERLOADED MICE**
Somdet Srichairatanakool, PhD¹, Nittaya Chansiw, PhD², Kanjana Pangjit, PhD³, Chada Phisalaphong, PhD⁴, John Porter, FRCP, FRCPath, MD⁵, Patricia Evans, PhD⁶, Robert Hider, PhD⁶ and Suthat Fucharoen, MD⁷
¹Chiang Mai University; ²Department of Biochemistry, Faculty of Medicine, Chiang Mai University, Thailand; ³College of Medicine and Public Health, Ubon Ratchathani University, Thailand; ⁴Government Pharmaceutical Organization, Thailand; ⁵Department of Haematology, University College London, United Kingdom; ⁶Institute of Pharmaceutical Science, King's College London, United Kingdom; ⁷Institute of Molecular Bioscience, Mahidol University, Thailand
Presented By: Somdet Srichairatanakool, PhD
- Poster #LB5** **ROLE OF EFEUOB IN IRON ACQUISITION AND PATHOGENICITY OF ESCHERICHIA COLI O157:H7**
Arvindkumar Salunkhe and Simon Andrews
University of Reading, UK
Presented By: Arvindkumar Salunkhe
- Poster #LB6** **IRON INDUCES INSULIN RESISTANCE IN CARDIOMYOCYTES VIA REGULATION OF OXIDATIVE STRESS**
Hyekyoung Sung and Gary Sweeney, PhD
York University
Presented By: Hyekyoung Sung
- Poster #LB7** **MITOCHONDRIAL FERRITIN DELETION EXACERBATES β –AMYLOID–INDUCED NEUROTOXICITY IN MICE**
Peina Wang, Qiong Wu, Wenyue Wu, Haiyan Li, Yuetong Guo, Peng Yu, Guofen Gao, Zhenhua Shi, Baolu Zhao and Yan-Zhong Chang
Hebei Normal University
Presented By: Peina Wang
- Poster #LB8** **THE PROTECTIVE ROLE OF MITOCHONDRIAL FERRITIN ON ERASTIN–INDUCED FERROPTOSIS**
Yueqi Wang, Shiyang Chang, Qiong Wu, Yujing Gou, Linpei Jia, Yanmei Cui, Peng Yu, Zhenhua Shi, Wenshuang Wu, Guofen Gao and Yan-Zhong Chang
Hebei Normal University
Presented By: Shiyang Chang
- Poster #LB9** **CHARACTERIZATION OF MITOCHONDRIAL FERRITIN–OVEREXPRESSION MICE**
Peina Wang, Xin Li, Shiyang Chang, Weina Kong and Yan-Zhong Chang
Hebei Normal University
Presented By: Peina Wang
- Poster #LB10** **MITOCHONDRIAL FERRITIN PROTECTS HYDROGEN PEROXIDE–INDUCED NEURONAL CELL DAMAGE**
Guofen Gao, Nan Zhang, Yueqi Wang, Zhen Li, Peng Yu, Zhenhua Shi, Baolu Zhao, Wenshuang Wu, Yan-Zhong Chang and Shiyang Chang
Hebei Normal University
Presented By: Shiyang Chang
- Poster #LB11** **WITHDRAWN**
- Poster #LB12** **FERRIC CARBOXYMALTOSIDE VERSUS IRON SUCROSE COMPLEX IN WOMEN WITH IRON DEFICIENCY ANEMIA – A RANDOMISED CONTROLLED TRIAL**
Garima Chaudhry
Obstetrics & Gynaecology
Presented By: Garima Chaudhry

- Poster #LB13** **INTRA- AND INTER-MOLECULAR SIGNAL TRANSDUCTION MECHANISMS OF HEME SENSING SYSTEMS**
Hitomi Sawai, PhD¹, Gareth S. A. Wright, PhD², Akane Saeki, MSc¹, Takaaki Hikima, PhD³, Masaki Yamamoto, PhD³, Svetlana Antonyuk, PhD², S. Samar Hasnain, PhD² and Yoshitsugu Shiro, PhD^{1,3}
¹Graduate School of Life Science, University of Hyogo; ²Institute of Integrative Biology, University of Liverpool; ³RIKEN SPring-8 Center
Presented By: Hitomi Sawai, PhD
- Poster #LB14** **STRUCTURAL INSIGHTS INTO ASCORBATE-DEPENDENT FERRIREDUCTASE, DCYTB, IN HUMAN**
Menega Ganasen¹, Hitomi Sawai, PhD², Hiromi Togashi, PhD³, Hanae Takeda, MSc³, Yoshitsugu Shiro, PhD^{2,3} and Hiroshi Sugimoto, PhD³
¹Graduate School of Life Science, University of Hyogo; ²Grad. Sch. of Life Sci., Univ. Hyogo; ³RIKEN SPring-8 Center
Presented By: Menega Ganasen, MS
- Poster #LB15** **NASAL DELIVERY OF NANOLIPOSOME-ENCAPSULATED FERRIC AMMONIUM CITRATE CAN INCREASE THE IRON CONTENT OF RAT BRAIN**
Xueling Guo, MS², Hong Zheng, MS³, Yuetong Guo, MS², Yan Wang, MS², Gregory J. Anderson, Ph D⁴, Yunzhe Ci, MS², Peng Yu, Ph D¹, Lina Geng, Ph D³ and Yanzhong Chang, Ph D²
¹Laboratory of Molecular Iron Metabolism, Key laboratory of Animal Physiology, Biochemistry and Molecular Biology of Hebei Province, College of Life Sciences, Hebei Normal University; ²College of Life Sciences, Hebei Normal University; ³College of Chemistry and Material Science, Hebei Normal University; ⁴Iron Metabolism Laboratory, QIMR Berghofer Medical Research Institute
Presented By: Peng Yu, PhD
- Poster #LB16** **FERRITIN IN THE CEREBROSPINAL FLUID PREDICTS RATE OF AMYLOID BETA ACCUMULATION IN BIOMARKER-CONFIRMED ALZHEIMER'S DISEASE**
Scott Ayton, PhD¹, Ibrahima Diouf, PhD² and Ashley Bush, MB BS, PhD^{3,4,5}
¹Florey Institute of Neuroscience and Mental Health; ²CSIRO Health and Biosecurity/Australian E- Health Research Centre, Brisbane, Australia; ³The Florey Institute for Neuroscience and Mental Health; ⁴The University of Melbourne, Australia; ⁵Cooperative Research Center for Mental Health, Victoria, Australia
Presented By: Scott Ayton, PhD
- Poster #LB17** **HAEMOCHROMATOSIS AUSTRALIA – A POTENTIAL RESEARCH PARTNER?**
Dianne Prince
Haemochromatosis Australia
Presented By: Dianne Prince
- Poster #LB18** **FERRIC CITRATE AND FERRIC EDTA DRIVE PROLIFERATION OF GUT EPITHELIAL CANCER CELLS VIA AMPHIREGULIN MEDIATED ACTIVATION OF THE MAP KINASE PATHWAY**
Nathalie Scheers^{1,2}, Dora I.A. Pereira^{2,3}, Nuno Faria^{2,4} and Jonathan J.J. Powell^{2,4}
¹Chalmers University of Technology; ²Elsie Widdowson Laboratory, Medical Research Council, Cambridge, UK; ³Department of Pathology, University of Cambridge; ⁴Department of Veterinary Medicine, University of Cambridge
Presented By: Natalie Scheers, PhD
- Poster #LB19** **SHORT FORM HEALTH SURVEY (SF-36) DIFFERS BETWEEN GENOTYPIC GROUPS OF PATIENTS WITH SUSPECTED HEREDITARY HEMOCHROMATOSIS**
Paula Fernanda, MSc², Rodolfo Cançado, MD, PhD³, Flávio Naoum, MD, PhD⁴, Carla Dinardo, MD, PhD^{5,9}, Guilherme Fonseca, MD, MSc⁶, Sandra Gualandro, MD, PhD⁷, Jose Krieger, MD, PhD², Alexandre Pereira, MD, PhD², Pierre Brissot, MD, PhD⁸ and Paulo Santos, PhD¹
¹Federal University of Sao Paulo; ²Laboratory of Genetics and Molecular Cardiology, Heart Institute, University of São Paulo Medical School, São Paulo, Brazil; ³Hematology and Hemotherapy Section, Santa Casa Medical School, São Paulo, Brazil; ⁴Academia de Ciência e Tecnologia, São José do Rio Preto, Brazil; ⁵Fundação Pró-Sangue, Hemocentro de São Paulo, São Paulo, SP, Brazil; ⁶Hematology Service, Hospital das Clínicas, Medical School, University of São Paulo, São Paulo, Brazil; ⁷Hematology and Hemotherapy Discipline, Hospital das Clínicas, Medical School, University of São Paulo, São Paulo, Brazil; ⁸Liver Disease Unit, Pontchaillou University Hospital, University of Rennes, and National Reference Centre for Rare Iron Overload Diseases of Genetic Origin, Rennes, France; ⁹Universidade de São Paulo (USP), São Paulo, SP, Brazil
Presented By: Paulo Caleb J L Santos, PhD
- Poster #LB20** **HDAC INHIBITION AND GAIN-OF-FUNCTION P53 MUTATION DICTATES ONCOGENIC PHENOTYPE AND INFLUENCES IRON METABOLISM IN THE SW13 CELL LINE**
McKale Montgomery¹ and Elizabeth Hull, PhD²
¹Midwestern University; ²Midwestern University
Presented By: McKale Montgomery
- Poster #LB21** **FERROPORTIN INHIBITORS PREVENT IRON LOADING IN A MOUSE MODEL OF HEREDITARY HEMOCHROMATOSIS**
Naja Nyffenegger, PhD, Anna Flace, Camillo Canciani, Franz Duerrenberger, PhD and Vania Manolova, PhD Vifor Pharma Ltd.
Presented By: Naja Nyffenegger, PhD

- Poster #LB22** **GINGER NANOPARTICLE–DERIVED LIPID VECTOR SIRNA DELIVERY SYSTEM TARGETING INTESTINAL DIVALENT METAL–ION TRANSPORTER 1 (DMT1) AS A NOVEL TREATMENT FOR HEREDITARY HEMOCHROMATOSIS**
Xiaoyu Wang¹, Mingzhen Zhang, PhD², Didier Merlin, PhD² and James Collins, PhD¹
¹University of Florida; ²Georgia State University
Presented By: Xiaoyu Wang
- Poster #LB23** **LOSS OF LIVER SPECIFIC IRON CHAPERONE PCBP1 LEADS TO STEATOSIS AND HYPERLIPIDEMIA**
Shyamalagauri Jadhav, Olga Protchenko, Fengmin Li, Oksana Gavrilova, James Cox, Howard Smith, Minoo Shakoury– Elizeh and Caroline Philpott
National Institute of Diabetes and Digestive and Kidney Diseases
Presented By: Shyamalagauri Jadhav
- Poster #LB24** **THE HEPCIDIN KNOCKOUT RAT: A NOVEL MODEL OF JUVENILE HEREDITARY HEMOCHROMATOSIS IN HUMANS**
Shireen Flores, MS, Xiaoyu Wang, MS, Tao Wang, Jungheun Ha, PhD, Caglar Doguer, PhD and James Collins, PhD
University of Florida
Presented By: Shireen Flores, MS
- Poster #LB25** **PLUTONIUM–TRANSFERRIN BINDING MONITORED BY CE– ICP– MS**
Robert Evans, BA, PhD¹, Sandrine Sauge– Merle^{2,3,4}, David Lemaire^{2,3,4}, Catherine Berthomieu^{2,3,4} and Jean Aupiais^{2,5,6} ¹Brunel University; ²CEA; ³CNRS; ⁴Aix– Marseille University; ⁵DAM; ⁶DIF
Presented By: Robert William Evans, BA, PhD

TUESDAY, MAY 9, 2017

OVERVIEW

- 7:00 – 14:00** **Registration/Information Desk Open**
Location: Centennial Hall Prefunction, Level One
- 8:00 – 13:00** **Exhibit Hall Open**
Location: Centennial Hall Prefunction, Level One

GENERAL SESSION

- 8:00 – 9:30** **Plenary Session II: Unmet Clinical Needs in Iron Deficiency**
Chairs: Sigismond Lasocki, MD, PhD
CHU Angers
France

Igor Theurl, MD
University of Innsbruck
Austria
- 8:00 – 8:30** **Patient Blood Management Programs**
Speaker: Axel Hofmann, ME
University Hospital Zurich
Switzerland
- 8:30 – 9:00** **Anemia of the Elderly**
Speaker: Domenico Girelli, MD, PhD
University of Verona
Italy
- 9:00 – 9:30** **Iron Deficiency in Heart Failure**
Speaker: Lawrence T. Goodnough, MD
The Stanford University Medical Center
USA
- 9:30 – 10:00** **Panel Discussion: Controversies in Iron Supplementation**
Chairs: Chaim Hershko, MD
The Hebrew University of Jerusalem
Israel

John Wood, MD, PhD
Children's Hospital Los Angeles, Keck School of Medicine
USA

Panelists: Hossein Ardehali, MD, PhD
Northwestern University
USA

Domenico Girelli, MD, PhD
University of Verona
Italy

Lawrence T. Goodnough, MD
The Stanford University Medical Center
USA

Axel Hofmann, ME
University Hospital Zurich
Switzerland

Iain C. Macdougall, MD, FRCP
King's College Hospital
United Kingdom

10:00 – 10:30

Coffee Break

10:30 – 11:00

Paul Erlich Lecture

Chair: Robert E. Fleming, MD
St. Louis University School of Medicine
USA

Iron Chelation: Past, Present and Future

Speaker: Robert Hider, BSc, PhD
King's College London
United Kingdom

11:00 – 12:30

Plenary Session III: 50-Year Anniversary of Iron Chelation

Chairs: Ioav Cabantchik, MD, PhD
The Hebrew University of Jerusalem
Israel

John B. Porter, MD, FRCP
University College London
United Kingdom

11:00 – 11:30

Iron Metabolism in the CNS: Implication for Neurodegenerative Diseases

Speaker: Tracey Rouault, MD
National Institutes of Health
USA

11:30 – 12:00

Molecular Mechanisms of Chelation Therapy

Speaker: Ashley Bush, MD, PhD
The University of Melbourne Florey Institute of Neuroscience and Mental Health
Australia

12:00 – 12:30

Chelation Therapy in Neurodegenerative Disease: Clinical Evidence

Speaker: David Devos, MD, PhD
Lille Nord De France University
France

12:30 – 13:00

Business Meeting (IBIS Members)

WEDNESDAY, MAY 10, 2017

OVERVIEW

7:00 – 18:15

Registration/Information Desk Open

Location: Centennial Hall Prefunction, Level One

7:30 – 15:00

Exhibit Hall Open

Location: Centennial Hall Prefunction, Level One

GENERAL SESSION

8:00 – 9:00

Meet the Experts I: Animal Models in Iron Research

Location: Exploration, Level Two

Moderator: Laura Silvestri, PhD
San Raffaele Scientific Institute & Vita– Salute University
Italy

*Students/Trainees ONLY – Space is limited

9:00 – 10:30 **Plenary Session IV: Iron and Anemia in Chronic Kidney Disease**

Chairs: Jodie Babbitt, MD
Massachusetts General Hospital
USA

Marie-Paule Roth, MD, PhD
Université Toulouse Paul Sabatier
France

9:00 – 9:30 **Pathogenesis of Anemia in CKD**

Speaker: Iain C. Macdougall, MD, FRCP
King's College Hospital
United Kingdom

9:30 – 10:00 **Emerging Therapies for CKD Anemia**

Speaker: Volker H. Haase, MD
Vanderbilt University
USA

10:00 – 10:30 **FGF23 in CKD: The Role of Iron and Anemia**

Speaker: Myles S. Wolf, MD, MMSc
Duke University School of Medicine
USA

10:30 – 11:00 **Coffee Break**

11:00 – 12:30 **Plenary Session V: Iron Sensor and Chaperones**

Chairs: Caroline Enns, PhD
Oregon Health Sciences University
USA

Francesca Carlomagno, PhD
University of Naples Federico II
Italy

11:00 – 11:30 **Ferritinophagy: The Mechanism and Biological Role**

Speaker: Joseph D. Mancias, MD, PhD
Dana-Farber Cancer Institute, Harvard Medical School
USA

11:30 – 12:00 **FBXL5: Sensing Intracellular Iron and Oxygen**

Speaker: Richard K. Bruick, PhD
UTSW Medical Center
USA

12:00 – 12:30 **Biological Role of PCBP, the Intracellular Iron Chaperones**

Speaker: Caroline Philpott, MD
Liver Disease Section, NIDDK
USA

12:30 – 14:00 **Lunch**

Location: Centennial Terrace, Level Three

14:00 – 15:30 **Concurrent Session V: Iron, Infection and Inflammation**

Location: Centennial Hall AB, Level One

Chairs: Zoubida Karim, PhD
INSERM
France

Guenter Weiss, MD
Medical University of Innsbruck
Austria

14:00 – 14:25 **Iron and Hcpidin in Infectious Disease and Adaptive Immunity: Emerging Principles**

Speaker: Alexander H. Drakesmith, PhD
Weatherall Institute of Molecular Medicine, University of Oxford
United Kingdom

14:25 – 14:50 **TfR1 Mutation Causes Combined Immunodeficiency**

Speaker: Janet Chou, MD
Boston Children's Hospital, Harvard Medical School
USA

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| 14:50 – 15:05 | #20 | <p>HEPCIDIN MEDIATES HOST DEFENSE AGAINST GRAM-NEGATIVE PATHOGENS BY CONTROLLING NON-TRANSFERRIN-BOUND IRON</p> <p>Deborah Stefanova¹, Antoan Raychev¹, Joao Arezes², Kathryn Michels³, Barbara Dillon¹, Marcus Horwitz¹, Borna Mehrad³, Tomas Ganz¹, Elizabeta Nemeth¹ and Yonca Bulut¹ ¹University of California, Los Angeles, ²University of Oxford, ³University of Virginia Presented By: D. Stefanova</p> |
| 15:05 – 15:20 | #21 | <p>EPIDERMAL HEPcidIN IS PROTECTIVE AGAINST GROUP A STREPTOCOCCUS INFECTION AND SYSTEMIC BACTERIAL SPREAD</p> <p>Mariangela Malerba, PhD student, Jacques Mathieu, Sabine Louis, Sylvain Cuvellier and Carole Peyssonnaud INSERM, U1016, CNRS UMR8104, Université Paris Descartes, Sorbonne Paris Cité, Institut Cochin Presented By: Mariangela Malerba</p> |
| 15:20 – 15:30 | #22 | <p>A NOVEL IRON-MEDIATED MECHANISM FOR DEVELOPMENT OF INFLAMMATORY BOWEL DISEASE</p> <p>Shirly Moshe-Belisowski, PhD, Lulu Fahoum, MSc, Lena Lifshitz, PhD, Abraham Nyska, PhD, Avi Zuckerman, PhD, Matti Waterman, MD, Roni Weissshof, MD, Orly Savion, PhD, Fabio Cominelli, MD PhD and Esther G. Meyron-Holtz Technion -Israel Institute of Technology Presented By: Esther G. Meyron-Holtz</p> |

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| 14:00 – 15:30 | | Concurrent Session VI: Iron and Cancer |
| | | <i>Location: Centennial Hall CD, Level One</i> |
| | | Chairs: Sijin Liu, PhD Chinese Academy of Sciences <i>China</i> |
| | | Suzy Torti, PhD University of Connecticut Health Center <i>USA</i> |
| 14:00 – 14:15 | #23 | <p>BREAST CANCER TUMORIGENICITY IS DEPENDENT ON HIGH EXPRESSION LEVELS OF NAF- 1 AND THE LABILITY OF ITS FE- S CLUSTERS</p> <p>Rachel Nechushtai¹, Merav Darash-Yahana, PhD¹, Ola Karmi¹, Y- S Sohn, PhD¹, Eli Pikarsky, MD/PhD², Ioav Cabantchik, MD/PhD¹ and Ron Mittler, PhD³ ¹The Hebrew University of Jerusalem; ²Hadassah; ³University of North Texas Presented By: Rachel Nechushtai</p> |
| 14:15 – 14:30 | #24 | <p>LOSS OF LOCAL HEPcidIN DECREASES TUMORIGENESIS IN COLORECTAL CANCER</p> <p>Andrew Schwartz, MS¹, Samira Lakhali-Littleton, DPhil², Peter Robbins, DPhil² and Yatrik Shah, PhD¹ ¹Molecular and Integrative Physiology, University of Michigan; ²Department of Physiology, Anatomy and Genetics, University of Oxford Presented By: Andrew Schwartz</p> |
| 14:30 – 14:45 | #25 | <p>DYSREGULATION OF IRON METABOLISM IN CHOLANGIOCARCINOMA STEM- LIKE CELLS</p> <p>Stefania Recalcati, MD/PhD¹, Chiara Raggi, PhD², Elena Gammella, PhD¹, Margherita Correnti, PhD², Paolo Buratti, PhD¹, Elisa Forti, PhD², Jasper Andersen, PhD³, Gianfranco Alpini, MD/PhD⁴, Domenico Alvaro, MD/PhD⁵, Pietro Invernizzi, MD/PhD⁶ and Gaetano Cairo, PhD¹ ¹University of Milan; ²Humanitas Clinical and Research Center, Rozzano, Italy; ³University of Copenhagen, Denmark; ⁴A&M Health Science Center, Texas; ⁵Sapienza University of Rome, Italy; ⁶University of Milan Bicocca Presented By: Gaetano Cairo</p> |
| 14:45 – 15:00 | #26 | <p>A NOVEL GALLIUM COMPOUND DISRUPTS TUMOR IRON HOMEOSTASIS AND RETARDS THE GROWTH OF GLIOBLASTOMA IN VIVO BY INHIBITING THE IRON-DEPENDENT M2 SUBUNIT OF RIBONUCLEOTIDE REDUCTASE (RRM2)</p> <p>Christopher Chitambar, MD, Mona Al-Gizawiy, PhD, Andrew Lozen, MD, Kimberly Pechman, PhD, Janine Wereley, BS, Robert Wujek, BS, Paul Clark, PhD, John Kuo, MD, PhD, Howard Elford, PhD, Bo Hedlund, PhD, Devashish Joshi, BS, William Antholine, PhD and Kathleen Schmainda, PhD Medical College of Wisconsin Presented By: Christopher Chitambar</p> |
| 15:00 – 15:15 | #27 | <p>FERROPTOSIS: A NEW POTENTIAL THERAPEUTIC TARGET FOR AGGRESSIVE TUMORS. A PRELIMINARY STUDY ON HELA, HEPG2 AND RHABDOMYOSARCOMA CELL LINES</p> <p>Michela Asperti, PhD, Silvia Codenotti, PhD Student, Magdalena Gryzik, PhD Student, Paolo Crotti, Student, Maria Regoni, PhD Student, Paolo Arosio, PhD, Alessandro Fanzani, PhD and Maura Poli, PhD University Of Brescia, Italy Presented By: Michela Asperti</p> |

15:15 – 15:30

#28

IMPACT OF HEMOCHROMATOSIS ON COLON: INCREASED SUSCEPTIBILITY TO INFLAMMATION AND CARCINOGENESIS

Bojana Ristic, BS in Chemistry, Sathish Sivaprakasam, PhD, Sabarish Ramachandran, PhD and Vadivel Ganapathy, PhD
Texas Tech University Health Sciences Center
Presented By: Bojana Ristic

15:30 – 15:45

Break

15:45 – 17:15

Featured Podium Presentations

Location: Centennial Hall AB, Level One

Chair: Robert E. Fleming, MD
St. Louis University School of Medicine
USA

Podium #1

(15:45 – 15:55)

SMAD1/5 IS REQUIRED FOR ERYTHROPOIETIN SUPPRESSION OF HEPCIDIN IN MICE

Chia-Yu Wang, Amanda B. Core, Kimberly B. Zumbrennen– Bullough, Susanna Canali, Sinan Ozer, Lieve Umans, An Zwijsen and Jodie L. Babitt
Massachusetts General Hospital, Harvard Medical School
Presented By: Chia-Yu Wang

Podium #2

(15:55 – 16:05)

LIVER HFE PROTEIN CONTENT IN IRON DEFICIENT MICE

Jan Krijt¹, Jana Frýdlová², Iuliia Gurieva² and Martin Vokurka²
¹Institute of Pathological Physiology, First Faculty of Medicine, Charles University; ²Institute of Pathological Physiology, First Faculty of Medicine, Charles University, Prague, Czech Republic
Presented By: Jan Krijt

Podium #3

(16:05 – 16:15)

EVIDENCE THAT HEPCIDIN OCCLUDES FERROPORTIN TO INHIBIT IRON EXPORT

Sharraya Aschemeyer, Bo Qiao, Erika Valore, Tomas Ganz and Elizabeta Nemeth
University of California, Los Angeles
Presented By: S. Aschemeyer

Podium #4

(16:15 – 16:25)

CALCIUM ACTIVATES FERROPORTIN– MEDIATED CELLULAR IRON EFFLUX

Bryan Mackenzie¹, T. Alex Ruwe¹, Chandrika N. Deshpande², Reiya Taniguchi³, Vicky Xin², Ali Shawk¹, Kyle R. Vieth¹, Bo Qiao⁴, Erika V. Valore⁴, Osamu Nureki³, Tomas Ganz⁴, Elizabeta Nemeth⁴ and Mika Jormakka²
¹University of Cincinnati College of Medicine; ²Centenary Institute–Sydney; ³RIKEN– Saitama; ⁴David Geffen School of Medicine at UCLA
Presented By: Bryan Mackenzie

Podium #5

(16:25 – 16:35)

AGE RELATED IRON ACCUMULATION: ACCUMULATING WHAT EXACTLY?

Simon James, PhD¹, Dominic Hare, PhD¹, Martin de Jonge, PhD² and Gawain McColl, PhD¹
¹Florey Institute of Neuroscience and Mental Health; ²Australian Synchrotron, Australia
Presented By: Simon James

Podium #6

(16:35 – 16:45)

RECOVERY OF HEME OXYGENASE 1– DEFICIENT MICE THROUGH REPOPULATION OF WT MACROPHAGES IN RETICULOENDOTHELIAL SYSTEM

Ki Soon Kim and Tracey A Rouault, PhD
NIH
Presented By: Ki Soon Kim

Podium #7

(16:45 – 16:55)

DEVELOPING A GALNAC– CONJUGATED Tmprss6 ANTISENSE THERAPY FOR THE TREATMENT OF β -THALASSEMIA

Shuling Guo, PhD¹, Mariam Aghajan, PhD¹, Tom Zanardi, PhD¹, Rudy Gunawan, PhD¹, Carla Casu, PhD², Vania Presti², Sheri Booten¹, Stefano Rivella, PhD² and Brett Monia, PhD¹
¹Ionis Pharmaceuticals; ²Children's Hospital of Philadelphia
Presented By: Shuling Guo

Podium #8

(16:55 – 17:05)

HEME ACCUMULATION IN ENDOTHELIAL CELLS IMPAIRS ANGIOGENESIS BY TRIGGERING PARAPTOSIS

Sara Petrillo¹, Deborah Chiabrando, PhD¹, Tullio Genova, PhD¹, Veronica Fiorito, PhD¹, Giada Ingoglia, PhD¹, Francesca Vinchi, PhD², Federico Mussano³, Stefano Carossa³, Lorenzo Silengo¹, Fiorella Altruda¹, Giorgio Merlo¹, Luca Munaron¹ and Emanuela Tolosano¹
¹University of Turin; ²University of Heidelberg; ³University of Turin, Dental School
Presented By: Sara Petrillo

Podium #9

(17:05 – 17:15)

TWO SIDES OF THE SAME COIN: A FRESH PERSPECTIVE ON THE ROLE OF TNF α IN INFLAMMATION, IRON METABOLISM AND HEMATOPOIESIS

Vania Lo Presti, MSc, Carla Casu, PhD, Rea Paraskevi Oikonomidou, MD, Emir O'Hara, BSc, Sara Gardenghi, PhD and Stefano Rivella, PhD
Children's Hospital of Philadelphia
Presented By: Vania Lo Presti

17:15 – 19:00

Poster Session II

*Location: South Meeting Rooms, Level Two
Refreshments available. Beer and wine service to begin at 17:30.*

- Poster #1** **SMAD1/5 IS REQUIRED FOR ERYTHROPOIETIN SUPPRESSION OF HEPICIDIN IN MICE**
Chia– Yu Wang, Amanda B. Core, Kimberly B. Zumbrennen– Bullough, Susanna Canali, Sinan Ozer, Lieve Umans, An Zwijsen and Jodie L. Babitt
Massachusetts General Hospital, Harvard Medical School
Presented By: Chia– Yu Wang
- Poster #2** **LIVER HFE PROTEIN CONTENT IN IRON DEFICIENT MICE**
Jan Krijt¹, Jana Frýdlová², Iuliia Gurieva² and Martin Vokurka²
¹Institute of Pathological Physiology, First Faculty of Medicine, Charles University; ²Institute of Pathological Physiology, First Faculty of Medicine, Charles University, Prague, Czech Republic
Presented By: Jan Krijt
- Poster #3** **EVIDENCE THAT HEPICIDIN OCCLUDES FERROPORTIN TO INHIBIT IRON EXPORT**
S. Aschemeyer, B. Qiao, E. Valore, T. Ganz and E. Nemeth
University of California, Los Angeles
Presented By: S. Aschemeyer
- Poster #4** **CALCIUM ACTIVATES FERROPORTIN–MEDIATED CELLULAR IRON EFFLUX**
Bryan Mackenzie¹, T. Alex Ruwe¹, Chandrika N. Deshpande², Reiya Taniguchi³, Vicky Xin², Ali Shawk¹, Kyle R. Vieth¹, Bo Qiao⁴, Erika V. Valore⁴, Osamu Nureki³, Tomas Ganz⁴, Elizabeta Nemeth⁴ and Mika Jormakka²
¹University of Cincinnati College of Medicine; ²Centenary Institute– Sydney; ³RIKEN– Saitama; ⁴David Geffen School of Medicine at UCLA
Presented By: Bryan Mackenzie
- Poster #5** **AGE RELATED IRON ACCUMULATION: ACCUMULATING WHAT EXACTLY?**
Simon James, PhD¹, Dominic Hare, PhD¹, Martin de Jonge, PhD² and Gawain McColl, PhD¹
¹Florey Institute of Neuroscience and Mental Health; ²Australian Synchrotron
Presented By: Simon James
- Poster #6** **RECOVERY OF HEME OXYGENASE 1– DEFICIENT MICE THROUGH REPOPULATION OF WT MACROPHAGES IN RETICULOENDOTHELIAL SYSTEM**
Ki Soon Kim and Tracey A Rouault, PhD
NIH
Presented By: Ki Soon Kim
- Poster #7** **DEVELOPING A GALNAC–CONJUGATED TMPRSS6 ANTISENSE THERAPY FOR THE TREATMENT OF β –THALASSEMIA**
Shuling Guo, PhD¹, Mariam Aghajan, PhD¹, Tom Zanardi, PhD¹, Rudy Gunawan, PhD¹, Carla Casu, PhD², Vania Presti², Sheri Booten¹, Stefano Rivella, PhD² and Brett Monia, PhD¹
¹Ionis Pharmaceuticals; ²Children’s Hospital of Philadelphia
Presented By: Shuling Guo
- Poster #8** **HEME ACCUMULATION IN ENDOTHELIAL CELLS IMPAIRS ANGIOGENESIS BY TRIGGERING PARAPTOSIS**
Sara Petrillo¹, Deborah Chiabrando, PhD¹, Tullio Genova, PhD¹, Veronica Fiorito, PhD¹, Giada Ingoglia, PhD¹, Francesca Vinchi, PhD², Federico Mussano³, Stefano Carossa³, Lorenzo Silengo¹, Fiorella Altruda¹, Giorgio Merlo¹, Luca Munaron¹ and Emanuela Tolosano¹
¹University of Turin; ²University of Heidelberg; ³University of Turin, Dental School
Presented By: Sara Petrillo
- Poster #9** **TWO SIDES OF THE SAME COIN: A FRESH PERSPECTIVE ON THE ROLE OF TNF α IN INFLAMMATION, IRON METABOLISM AND HEMATOPOIESIS**
Vania Lo Presti, MSc, Carla Casu, PhD, Rea Paraskevi Oikonomidou, MD, Emir O’Hara, BSc, Sara Gardenghi, PhD and Stefano Rivella, PhD
Children’s Hospital of Philadelphia
Presented By: Vania Lo Presti
- Poster #115** **LOW HEPICIDIN LEVELS CAN COMPENSATE FOR THE LACK OF A FERROPORTIN ALLELE**
Sandro Altamura, PhD^{1,4}, Julia Schmidt^{1,4}, Katja Muedder^{1,4}, Bruno Galy², Matthias Hentze^{3,4} and Martina Muckenthaler^{1,4}
¹Department of Pediatric Hematology, Oncology and Immunology – University of Heidelberg, Heidelberg, Germany; ²Division of Virus– associated Carcinogenesis, German Cancer Research Centre, Heidelberg, Germany; ³European Molecular Biology Laboratory, Heidelberg, Germany; ⁴Molecular Medicine Partnership Unit, Heidelberg, Germany
Presented By: Sandro Altamura, PhD

- Poster #116** **LIPOSOME ENCAPSULATED DEFEROXAMINE (LDFO) HAS A HIGH MOLAR EFFICIENCY IN REMOVING IRON IN AN IRON-OVERLOADED MOUSE MODEL**
 Mark Hayes, PhD¹, David Tran, PhD², Max Petersen, BSc², Charles Noble, PhD², Zhipeng Dai, PhD², Peter Working, PhD² and Francis Szoka, PhD³
¹ZoneOne Pharma Inc; ²ZoneOne Pharma, Inc; ³ZoneOne Pharma, Inc and UCSF Dept. Bioengineering and Therapeutics
 Presented By: Charles Noble, BSc, PhD
- Poster #117** **HUMAN MACROPHAGE FERROPORTIN BIOLOGY AND THE BASIS FOR THE FERROPORTIN DISEASE**
 Manuela Sabelli, Giuliana Montosi, Cinzia Garuti, Angela Caleffi, Stefania Oliveto, Stefano Biffo and Antonello Pietrangelo
 Division of Internal Medicine ² and Center for Hemochromatosis, University Hospital of Modena, Italy.
 Presented By: Antonello Pietrangelo, MD, PhD
- Poster #118** **ACERULOPLASMINEMIA: EXPERIENCES AT THE VENETO REGION REFERRAL CENTER FOR IRON DISORDERS**
 Chiara Piubelli, PhD^{1,2}, Annalisa Castagna, PhD, Giacomo Marchi, MD, Monica Rizzi, MD, Fabiana Busti, MD, Paola Capelli, MD, Roberto Pozzi-Mucelli, MD, Massimiliano Calabrese, MD, Alice Vianello, MD, Luciano Xumerle, BSc, Massimo Delledonne, PhD, Oliviero Olivieri, MD and Domenico Girelli, MD, PhD
¹Veneto Region Referral Center for Iron Disorders, Azienda Ospedaliera Universitaria Integrata; ²Department of Medicine, Section of Internal Medicine, University of Verona Verona Italy
 Presented By: Chiara Piubelli, PhD
- Poster #119** **NON-HFE HAEMOCHROMATOSIS: A PHENOTYPIC AND CLINICAL ANALYSIS OF PUBLISHED CASES AND COMPARISON WITH HFE-HAEMOCHROMATOSIS**
 Daniel Wallace, BSc, PhD¹, Kam Sandhu², Kaledas Flintoff², Jeannette Dixon², Louise Ramm², Grant Ramm², Lawrie Powell² and V. Nathan Subramaniam¹
¹Queensland University of Technology; ²QIMR Berghofer Medical Research Institute
 Presented By: Daniel Frederick Wallace, PhD, BSc (hons)
- Poster #120** **INDEPENDENT ASSOCIATION OF GNPAT p.D519G WITH MARKEDLY INCREASED IRON STORES IN HFE p.C282Y HOMOZYGOTES**
 James Barton, MD², Wen-Pin Chen, MS³, Mary Emond, PhD⁴, Pradyumna Phatak, MD⁵, V. Nathan Subramaniam, PhD⁶, Paul Adams, MD⁷, Lyle Gurrin, PhD⁸, Gregory Anderson, PhD⁹, Grant Ramm, PhD⁹, Lawrie Powell, MD, PhD⁹, Katrina Allen, FRACP, PhD¹⁰, John Phillips, PhD¹¹, Charles Parker, MD¹², Gordon McLaren, MD¹ and Christine McLaren, PhD³
¹VA Long Beach Healthcare System and University of California, Irvine; ²Southern Iron Disorders Center; ³University of California, Irvine; ⁴University of Washington; ⁵Rochester General Hospital; ⁶QIMR Berghofer Medical Research Institute and The University of Queensland; ⁷London Health Sciences Centre; ⁸The University of Melbourne; ⁹QIMR Berghofer Medical Research Institute; ¹⁰Murdoch Childrens Research Institute; ¹¹University of Utah; ¹²University of Utah School of Medicine
 Presented By: Gordon McLaren, MD
- Poster #121** **ANY GAIN OF 300 ALTITUDE METERS INCREASES HEMOGLOBIN LEVELS IN YOUNG MEN LIVING AT LOW ALTITUDE IN SWITZERLAND**
 Kaspar Staub, Dr¹, Martin Häusler, Dr¹, Martina Muckenthaler, Prof Dr², Frank Rühli, Prof Dr¹ and Max Gassmann¹
¹University of Zurich; ²University of Heidelberg
 Presented By: Max Gassmann, DVM
- Poster #122** **IRON OVERLOAD ENHANCED CELL DEATH INDUCED BY CARCINOGENIC FIBROUS MATERIALS**
 Fumiya Ito, Master¹, Lei Shi, MD² and Shinya Toyokuni, MD, PhD²
¹Nagoya University Graduate School of Medicine; ²Nagoya University Graduate School of Medicine Department of Pathology and Biological Responses
 Presented By: Fumiya Ito, MA
- Poster #123** **TOLL-LIKE RECEPTORS AND REGULATION OF SYSTEMIC IRON HOMEOSTASIS**
 Oriana Marques, MSc, PhD
 Department of Paediatric Oncology, Haematology and Immunology, University of Heidelberg
 Presented By: Oriana Marques, MSc, PhD
- Poster #124** **HEMOJUVELIN IS CRITICAL FOR INFLAMMATORY SIGNALING TO HEPcidin**
 Nicole Wilkinson, PhD, Carine Fillebeen, PhD, John Wagner, MSc and Kostas Pantopoulos, PhD
 Lady Davis Institute for Medical Research/McGill University
 Presented By: Kostas Pantopoulos, PhD
- Poster #125** **INSIGHT INTO THE MECHANISM OF HEME EXTRACTION FROM HUMAN HEMOGLOBIN BY THE ISDH RECEPTOR FROM STAPHYLOCOCCUS AUREUS**
 Ramsay Macdonald¹, Megan Sjodt, PhD¹, Joanna Marshall, BS¹, John Olson, PhD², David Gell, PhD³ and Robert Clubb, PhD¹
¹UCLA; ²Rice University; ³University of Tasmania
 Presented By: Ramsay Macdonald

- Poster #126** **IRON SUPPLEMENTS MODULATE COLON MICROBIOTA COMPOSITION AND DEXTRAN SODIUM SULFATE-INDUCED COLITIS**
Marco Constante, Gabriela Fragoso, PhD, Joseph Lupien-Meilleur, MSc, Annie Calve, MSc and Manuela M. Santos, PhD
CRCHUM
Presented By: Marco Constante, BSc
- Poster #127** **HEMIN AND ALTERED IRON METABOLISM IN SICKLE CELL DISEASE MODULATE HIV-1 RESTRICTION FACTORS**
Namita Kumari¹, Miguel Mulder, PhD², Douglas Nixon, PhD² and Sergei Nekhai, PhD¹
¹Howard University; ²George Washington University
Presented By: Namita Kumari
- Poster #128** **ROLE OF EPIGENETIC REGULATION OF IRON HOMEOSTASIS GENES AND NEURODEGENERATION**
Steinunn Sara Helgudottir¹, Jacek Lichota, PhD² and Torben Moos, Professor, PhD, MD²
¹Health Science and Technology, Aalborg University; ²Aalborg University, Denmark
Presented By: Steinunn Sara Helgudottir
- Poster #129** **EFFECTS OF PARENTAL IRON THERAPY TO PREGNANT RATS WITH SYSTEMIC IRON DEFICIENCY WITHOUT ANEMIA ON CEREBRAL IRON STATUS AT BIRTH AND IN ADULTHOOD**
Jacek Lichota¹, Annette Burkhardt, PhD², Tina Skjørringe, PhD², Lisa Juul Routhe, MSc², Lars Lykke Thomsen, PhD, MD³ and Torben Moos, Professor, PhD, MD²
¹Health Science and Technology, Aalborg University; ²Aalborg University, Denmark; ³Pharmacosmos, Denmark
Presented By: Jacek Lichota
- Poster #130** **INFLAMMATION- DRIVEN DISRUPTION OF IRON HOMEOSTASIS IN PARKINSON'S DISEASE**
Ana Catarina Vaz Carreto Martins, MSc², Susana Ramos, PhD³, Miguel P. Soares, PhD³ and Raffaella Gozzelino, PhD¹
¹Chronic Diseases Research Center /NOVA Medical School; ²CEDOC/NOVA Medical School; ³Instituto Gulbenkian de Ciência
Presented By: Raffaella Gozzelino, PhD
- Poster #131** **RESTING STATE MRI BRAIN DIFFERENCES IN HFE AND TRANSFERRIN MUTATION CARRIERS**
Mark Meadowcroft, PhD¹, Jianli Wang, MD, PhD², Carson Purnell, BS², Paul Eslinger, PhD², Elizabeth Neely, BS², Qing Yang, PhD² and James Connor, PhD²
¹The Pennsylvania State University – College of Medicine; ²The Pennsylvania State University – College of Medicine
Presented By: Mark Meadowcroft, PhD
- Poster #132** **IRON PROMOTES SENESCENCE IN FIBROBLASTS AND IPS-DERIVED NEURONS FROM NEUROFERRITINOPATHY PATIENTS**
Anna Cozzi, PhD², Daniel I. Orellana, PhD³, Paolo Santambrogio, PhD³, Alicia Rubio, PhD³, Angelo Iannielli, PhD³, Chiara Fiorillo, MD⁴, Gian Luca Forni, MD⁵, Vania Broccoli, PhD⁶ and Sonia Levi, PhD¹
¹Vita-Salute San Raffaele University; ²San Raffaele Scientific Institute, Milano, Italy.; ³San Raffaele Scientific Institute Milano, Italy.; ⁴University of Genoa, Genoa, Italy.; ⁵E.O. Ospedali Galliera, Genova, Italy.; ⁶CNR-Institute of Neuroscience, Milano, Italy
Presented By: Sonia Levi, PhD
- Poster #134** **PATHOLOGICAL RELATIONSHIPS INVOLVING IRON AND MYELIN MAY CONSTITUTE A SHARED MECHANISM LINKING VARIOUS RARE AND COMMON BRAIN DISEASES**
Moones Heidari, PhD², Daniel Johnstone, Brianna Bassett, Conceição Bettencourt, Joanna Collingwood, Sam Gerami, Michael House, Kristy Martin, Anita Chua, Mina Ryten, Henry Houlden, John Olynyk, Debbie Trinder and Elizabeth Milward¹
¹The University of Newcastle; ²University of Newcastle
Presented By: Elizabeth Milward
- Poster #135** **TFR2 KI MICE PRESENT AN ENRICHMENT IN CARDIAC FERRITIN L THAT CONFERS CARDIOPROTECTION AGAINST I/R INJURIES**
Martina Boero, Biologist¹, Rosa Maria Pellegrino, PhD², Mariarosa Mezzanotte, Dr², Antonietta Palmieri, Dr², Giuseppe Saglio, MD² and Antonella Roetto, PhD²
¹University of Torino; ²University of Torino, Department of Clinical and Biological Sciences, AOU San Luigi Gonzaga, Torino, Italy
Presented By: Martina Boero
- Poster #136** **DMT1, ZIP14, AND ZIP8 ARE DISPENSIBLE FOR IRON LOADING OF THE HEART**
Chia-Yu Wang, PhD, Supak Jenkitkasemwong, PhD and Mitchell Knutson, PhD
University of Florida, USA
Presented By: Mitchell Knutson, PhD

- Poster #137** **CARDIAC IRON BURDEN IS CORRELATED WITH INNATE IMMUNE MARKERS, BODY MASS INDEX AND LABILE PLASMA IRON IN β -THALASSEMIA MAJOR PATIENTS UNDERGOING COMBINED CHELATION THERAPY**
 Nicholas Slater, BSc², Marcela Weyhmler, PhD¹, Patricia Evans, PhD³, John Porter, MD³, Annie Higa, BS¹, Vivian Ng, BS¹, Nancy Sweeters, PNP¹, Jackson Price, BSc², Alisha Manji, BSc², David Killilea, PhD¹, Lynne Neumayer, MD¹, Ashutosh Lal, MD¹, Paul Harmatz, MD¹, Elliott Vichinsky, MD¹ and Patrick Walter, PhD¹
¹UCSF Benioff Children's Hospital Oakland; ²Biology, University of Victoria; ³University College London
 Presented By: Patrick Walter, PhD
- Poster #138** **RENAL HANDLING OF NON-TRANSFERRIN BOUND IRON AND ASSOCIATED INJURY IN PROXIMAL TUBULAR EPITHELIAL CELLS**
 Sanne van Raaij¹, Rosalinde Masereeuw, PhD², Dorine Swinkels, PhD¹ and Rachel van Swelm, PhD¹
¹Radboud University Medical Center, Nijmegen, The Netherlands; ²Utrecht Institute for Pharmaceutical Sciences, Utrecht, The Netherlands
 Presented By: Sanne van Raaij
- Poster #139** **INCREASED IRON ACCUMULATION AND UPREGULATED HEPICIDIN EXPRESSION IN KIDNEYS OF SICKLE CELL DISEASE MICE**
 Marina Jerebtsova, PhD¹, Guelaguetza Vazquez– Meves, PhD¹, Namita Kumari, PhD¹, Nowah Afangbedji, BS¹, Alfia Khaibullina, PhD², Zena Quezado, MD² and Sergei Nekhai, PhD¹
¹Howard University; ²Sheikh Zayed Institute, Children's National Health System
 Presented By: Sergei Nekhai, PhD
- Poster #140** **ENHANCED MEDULLARY IRON TRAFFICKING MAY EXPLAIN RESISTANCE OF KIDNEY TO IRON OVERLOAD INJURY**
 Avital Weiss, PhD, Lior Spector, MSc, Inbar Gold, MSc, Lena Lifshitz, PhD, Abraham Nyska, PhD, Sefi Addadi, PhD, Diana Goldberg, Yael Haimovich, MSc, Tracey A. Rouault, MD and Esther G. Meyron-Holtz
 Technion –Israel Institute of Technology
 Presented By: Esther Meyron-Holtz, PhD
- Poster #141** **ELEVATIONS IN FGF23 PRECEDE DISRUPTIONS IN EITHER PHOSPHATE OR IRON HOMEOSTASIS IN THE EBF1– KO MODEL OF RENAL INSUFFICIENCY**
 Sarah Jenkins¹, Xuiqi Li, BS¹, Tracy Nelson², Karin Finberg, MD, PhD¹ and Jackie Fretz, PhD¹
¹Yale School of Medicine; ²Yale School of Medicine
 Presented By: Jackie Fretz, PhD
- Poster #143** **COMPARISON OF MATERNAL AND FETAL IRON REGULATORS IN IRON DEFICIENCY ANEMIA OF PREGNANCY**
 Sreenithi Santhakumar, MTech¹, Rekha Athiyarath, PhD¹, Anne George Cherian, MD², Vinod Joseph Abraham, MD² and Eunice Sindhuvi Edison, PhD¹
¹Department of Haematology, Christian Medical College, Vellore, India; ²Department of Community Health, Christian Medical College, Vellore, India
 Presented By: Eunice Sindhuvi Edison, PhD
- Poster #144** **A NOVEL IN VITRO MODEL OF SIMULATED TWICE A DAY IRON SUPPLEMENTATION FOR ASSESSMENT OF IRON UPTAKE AND CELLULAR DAMAGE**
 Petia Apostolova¹, Voni Blesia, MSc², Christelle Tossou, MPharm², Derek Renshaw, MSc, PhD³, Sebastien Farnaud, MSc, PhD³, Robert Evans, BA, PhD⁴ and M.Gulrez Zariwala, BPharm, MSc, PhD²
¹University of Westminster; ²Faculty of Science & Technology / University of Westminster; ³Centre for Applied Biological and Exercise Sciences / Coventry University; ⁴Centre For Electronic Systems Research / Brunel University
 Presented By: Petia Apostolova
- Poster #145** **IRONWOMAN TRIAL: THE IMPACT OF INTRAVENOUS IRON ON EXERCISE PERFORMANCE IN IRON DEFICIENT, EXERCISING WOMEN**
 Georgie Bruinvels⁵, Charles Pedlar, PhD¹, Richard Burden, PhD², Nicola Brown, PhD³, Anna Butcher, MD⁴, Marisa Chau, BSc⁴ and Toby Richards, MD⁴
¹Massachusetts General Hospital, St Mary's University, Orreco Ltd; ²St Mary's University, Orreco Ltd, English Institute of Sport; ³St Mary's University; ⁴University College London; ⁵UCL
 Presented By: Georgie Bruinvels
- Poster #146** **THE IMPACT OF HEAVY MENSTRUAL BLEEDING AND IRON STATUS ON FATIGUE IN MENSTRUATING WOMEN**
 Georgie Bruinvels¹, Charles Pedlar, PhD², Richard Burden, PhD³, Anna Butcher, MD⁴, Marisa Chau, BSc⁴, Timothy Cushway⁵ and Toby Richards, MD⁴
¹UCL; ²Massachusetts General Hospital, St Mary's University, Orreco Ltd.; ³St Mary's University, Orreco Ltd., English Institute of Sport; ⁴University College London; ⁵Vifor Pharma
 Presented By: Georgie Bruinvels

- Poster #147** **EFFECTS OF THE IRON CHELATOR CURCUMIN IN THE DSS-INDUCED COLITIS MOUSE MODEL**
Macha Samba Mondonga, MSc, Marco Constante, PhD, Gabriela Fragoso, PhD and Manuela M. Santos, PhD
CRCHUM, Université de Montréal
Presented By: Macha Samba Mondonga, MSc
- Poster #148** **OSTEOMALACIA AFTER TREATMENT WITH INTRAVENOUS IRON**
Benedikt Schaefer, MD¹, André Viveiros, MD¹, Irina Nardin², Bernhard Glodny, MD² and Heinz Zoller, MD¹
¹Medical University of Innsbruck, Department of Medicine II, Gastroenterology and Hepatology; ²Medical University of Innsbruck, Department of Radiology
Presented By: Benedikt Schaefer, MD
- Poster #149** **PREDICTORS OF IRON ABSORPTION FROM A NOVEL NANO IRON SUPPLEMENT (IHAT) IN GAMBIAN WOMEN IN THE ABSENCE OF INFLAMMATION**
Dora Pereira, PhD, MEng¹, Rita Wegmuller, PhD², Carla Cerami, PhD, MD² and Andrew Prentice, PhD²
¹University of Cambridge; ²MRC Unit, The Gambia
Presented By: Dora Pereira, PhD, MEng
- Poster #150** **ENTERAL IRON SUPPLEMENTATION INCREASES ERYTHROPOIESIS IN PREWEANLING WILD TYPE AND TMPRSS6 KNOCKOUT MICE**
Rebecca Verhaeghe, Ramya Bharathi, Nermi Parrow, Princy Prasad and Robert Fleming
Saint Louis University School of Medicine
Presented By: Rebecca Verhaeghe, DO
- Poster #151** **PANCREATIC IRON IN PATIENTS WITH HEMOCHROMATOSIS: NOT AS RARE AS CARDIAC IRON**
Jin Yamamura, MD², Roland Fischer, PhD³, Björn Schönagel, MD², Regine Grosse, MD⁴ and Peter Nielsen, MD, PhD¹
¹University Medical Centre Hamburg, Dept. of Biochemistry and Molecular Cell Biology; ²University Medical Centre Hamburg, Dept. of Diagnostic and Interventional Radiology; ³UCSF Benioff Children's Hospital and Research Centre Oakland, Dept. of Hematology/Oncology; ⁴University Medical Centre Hamburg, Pediatric Hematology/Oncology
Presented By: Peter Nielsen, MD, PhD
- Poster #152** **WITHDRAWN**
- Poster #153** **HEME AND IRON SHAPE THE PHENOTYPE OF MACROPHAGES IN THE TUMOR MICROENVIRONMENT OF NON-SMALL CELL LUNG CANCER**
Milene Costa da Silva^{1,5}, Carl Maximilian Thielmann^{1,5}, Margareta P. Correia², Michael O. Breckwoldt³, Michael Meister⁴, Thomas Muley⁴, Adelheid Cerwenka² and Martina U. Muckenthaler^{1,5}
¹Department of Pediatric Oncology, Hematology and Immunology, University of Heidelberg, Germany; ²Innate Immunity Group, German Cancer Research Center, Heidelberg, Germany; ³Department of Neuroradiology, University Hospital Heidelberg, Heidelberg, Germany; ⁴Translational Research Unit, Thoraxklinik at University Hospital Heidelberg, Heidelberg, Germany; ⁵Molecular Medicine Partnership Unit (MMPU), Heidelberg University & EMBL, Heidelberg, Germany
Presented By: Milene Costa Da Silva, PhD
- Poster #154** **THE ROLE OF IRON IN THE PROGRESSION OF SOFT TISSUE SARCOMAS**
Michela Asperti, PhD, Silvia Codenotti, PhD student, Paolo Crotti, student, Paolo Arosio, PhD, Alessandro Fanzani, PhD and Maura Poli, PhD
University of Brescia
Presented By: Maura Poli, PhD
- Poster #156** **INDUCTION OF IRON EXCESS IN PROSTATE CANCER: A NOVEL POTENTIAL THERAPEUTIC APPROACH**
Federica Morisi, Jessica Bordini, Gianluca Venturi, Alessia Fulli, Matteo Bellone, Francesco Montorsi, Alberto Briganti, Clara Camaschella and Alessandro Campanella
IRCCS Ospedale San Raffaele
Presented By: Alessandro Campanella, PhD
- Poster #157** **IRON ADMINISTRATION INCREASES BORTEZOMIB EFFICACY IN MULTIPLE MYELOMA MURINE MODELS**
Jessica Bordini, Federica Morisi, Alessia Fulli, Gianluca Venturi, Clara Camaschella and Alessandro Campanella
Vita-Salute San Raffaele University
Presented By: Jessica Bordini

- Poster #158** **ELEVATED SYSTEMIC HEME AND IRON LEVELS AS RISK FACTORS FOR VASCULOPATHY AND ATHEROSCLEROSIS: EVIDENCE FROM A β -THALASSEMIA COHORT STUDY**
Francesca Vinchi¹, Graca Porto, MD², Gregory M Vercellotti, MD³, John Belcher, PhD³, Richard Sparla, BTA¹, Eitan Fibach, PhD⁴, Hala Zreid, MD⁵, Rushdy Rasras, MD⁶, Hussam Ghoti, MD⁷, Martina U. Muckenthaler, PhD¹ and Eliezer A. Rachmilewitz, MD⁸
¹Molecular Medicine Partnership Unit, University of Heidelberg & EMBL, Heidelberg, Germany; ²University of Porto, Porto, Portugal; ³University of Minnesota, Minneapolis, USA; ⁴The Hebrew University Hadassah Medical Center, Jerusalem, Israel; ⁵AlShifa Hospital, Gaza, Palestine; ⁶European Hospital of Gaza, Gaza, Palestine; ⁷Assuta Medical Center, Tel Aviv, Israel; ⁸The Edith Wolfson Medical Center, Holon, Israel
Presented By: Francesca Vinchi, PhD
- Poster #159** **IN FIFTY YEARS: A UNIQUE WINDOW ON HEME AND IRON METABOLISM FROM THE HEMOPEXIN SYSTEM**
Ann Smith, PhD
SBS-UMKC
Presented By: Ann Smith, BSc, PhD
- Poster #160** **HEPCIDIN AS A PREDICTOR TO TREAT PREOPERATIVE ANEMIA EFFECTIVELY WITH INTRAVENOUS IRON**
Christina Wittkamp², Lisa Traeger², Ines Ellermann³, Maria Eveslage, Dipl-Stat⁴ and Andrea Steinbicker, MD MPH¹
¹University Hospital Muenster, Department of Anesthesiology, Intensive Care and Pain Medicine; ²Department of Anesthesiology, Intensive Care and Pain Medicine, University Hospital Muenster, University of Muenster, Muenster, Germany; ³Department of Pharmacy, University Hospital Muenster, University of Muenster, Muenster, Germany; ⁴Institute of Biostatistics and Clinical Research, University of Muenster, Germany
Presented By: Andrea Steinbicker, MD, MPH
- Poster #161** **INVESTIGATION OF MITOCHONDRIAL FUNCTION WITH IRON AND LIPID LOADING IN AML12 CELLS**
Abhishek Singh¹, Cyril Mamotte, BSc, PhD², Leon Adams, MB BS, PhD WAust, FRACP³ and Ross Graham, PhD, CBiol²
¹Curtin University/ Biomedical Science; ²Curtin University/ School of Biomedical Science and Curtin Health Innovation Research Institute; ³University of Western Australia/ School of Medicine and Pharmacology
Presented By: Abhishek Singh
- Poster #162** **UNCOUPLED IRON HOMEOSTASIS IN TYPE 2 DIABETES MELLITUS**
Sandro Altamura, PhD^{1,3}, Stefan Kopf², Julia Schmidt^{1,3}, Ana Rita da Silva^{1,3}, Peter Nawroth² and Martina Muckenthaler^{1,3}
¹Department of Pediatric Hematology, Oncology and Immunology – University of Heidelberg, Heidelberg, Germany; ²Department of Internal Medicine I and Clinical Chemistry, University of Heidelberg, Heidelberg, Germany; ³Molecular Medicine Partnership Unit, Heidelberg, Germany
Presented By: Sandro Altamura, PhD
- Poster #163** **CROSSTALK BETWEEN ACIDOSIS AND IRON METABOLISM: DATA ON HEPCIDIN AND H+/K+ ATPASE**
Raed Daher¹, Thibaud Lefebvre^{2,5}, Nicolas Ducrot², Philippe Lett ron³, Anne Couvelard⁴, Herv  Puy^{2,5} and Zoubida Karim²
¹INSERM U1149, Universit  Paris Diderot, Laboratory of Excellence, GR– Ex; ²INSERM U1149, Universit  Paris Diderot, Laboratory of Excellence, GR– Ex, Paris, France; ³INSERM U1149, Universit  Paris Diderot, Paris, France; ⁴INSERM U1149, Universit  Paris Diderot, AP– HP, D partement d’anatomo– pathologie, H pital Bich t, Paris, France; ⁵AP– HP, Centre Franais des Porphyries, H pital Louis Mourier, Colombes, France
Presented By: Raed Daher
- Poster #164** **TRANSFERRIN: A PREDICTOR OF SURVIVAL IN EARLY STAGE LIVER CIRRHOSIS**
Andr  Viveiros, MD, Armin Finkenstedt, MD, Benedikt Schaefer, MD, Konrad Lehner and Heinz Zoller, MD
Medical University Innsbruck
Presented By: Andre Viveiros, MD
- Poster #165** **ERYTHROFERRONE DOES NOT CONTRIBUTE TO GLUCOSE HOMEOSTASIS AND DOES NOT AFFECT INSULIN SENSITIVITY IN RESPONSE TO CHRONIC ERYTHROPOIETIN TREATMENT**
R. Coffey, V. Gabayan, E. Nemeth and T. Ganz
University of California, Los Angeles, USA
Presented By: Richard Coffey
- Poster #166** **GENOME WIDE ASSOCIATION STUDY (GWAS) OF STEATOSIS DUE TO DIETARY IRON OVERLOAD IN INBRED STRAINS OF MICE**
Dongyi Lu, Brie Fuqua, Simon Hui, Frode Norheim, Calvin Pan, Sarada Charugundla, Nam Che, Brian Parks, Eleazar Eskin, Chris Vulpe and Aldons Lusic
University of California, Los Angeles, USA
Presented By: Dongyi Lu

- Poster #167** **GENETIC LOSS OF TMPRSS6 MODIFIES THE PHYSIOLOGICAL RESPONSE TO A HIGH FAT DIET**
Abita Sukumaran, PhD, Larisa Lozovatsky, MS, Xiuqi Li, BS, Luis Gonzalez, BS and Karin Finberg, MD, PhD
Yale School of Medicine, USA
Presented By: Karin Finberg, MD, PhD
- Poster #168** **STUDY OF FERRITIN SELF- ASSEMBLY AND HETEROPOLYMER FORMATION BY FLUORESCENCE RESONANCE ENERGY TRANSFER (FRET)**
Fernando Carmona, PhD, Maura Poli, PhD, Magdalena Gryzik, PhD student, Andrea Denardo, Student and Paolo Arosio, PhD
Department of Molecular and Translational Medicine, University of Brescia, Italy
Presented By: Andrea Denardo
- Poster #169** **HEPARIN BINDING DOMAINS IN BMP6: STUDY ON THE SYNTHETIC PEPTIDES AND THE RECOMBINANT PROTEIN**
Paola Ruzzenenti, PhD student¹, Andrea Denardo, Student, Fernando Carmona, PhD, Stefania Federici, PhD², Michela Asperti, PhD, Paolo Bergese, PhD, Maura Poli, PhD and Paolo Arosio, PhD
¹Department of Molecular and Translational Medicine, University of Brescia, Italy; ²INSTM and Department of Mechanical and Industrial Engineering, University of Brescia, via Branze 38 25123 Brescia, Italy
Presented By: Paola Ruzzenenti
- Poster #170** **COMPARATIVE CHARACTERISATION OF THE FERROUS IRON TRANSPORT SYSTEMS EFEUOB AND FEOABC IN E. COLI**
Salem Al- Aidy and Simon Andrews, Professor
University of Reading
Presented By: Salem Al- Aidy
- Poster #171** **HEME OVERLOAD IN MICE PROMOTES IRON EXPORT FROM MACROPHAGES VIA ROS-MEDIATED FERROPORTIN ACTIVATION**
Maja Vujic Spasic, PhD¹, Naveen Kumar Tangudu, MSc², Betuel Alan, MSc², Dilay Lai², Francesca Vinchi, PhD³, Katharina Woehrl, MSc⁴, Sabine Vettorazzi, PhD² and Kerstin Leopold, PhD⁴
¹Institute of Comparative Molecular Endocrinology; ²Institute of Comparative Molecular Endocrinology, Ulm, Germany; ³Molecular Medicine Partnership Unit, Heidelberg, Germany; ⁴Institute of Analytical and Bioanalytical Chemistry, Ulm University, Ulm, Germany
Presented By: Maja Vujic Spasic, PhD
- Poster #172** **INTRACELLULAR SYSTEMS OF IRON COFACTOR DELIVERY: ANALYSIS OF MURINE MODELS OF IRON CHAPERONE DEFICIENCY**
Caroline Philpott, MD, Moon- Suhm Ryu, PhD, Fengmin Li, PhD, Avery Frey, PhD, Olga Protchenko, PhD and Minoos Shakoury- Elizeh, MS
NIDDK, NIH
Presented By: Caroline Philpott, MD
- Poster #173** **THE MAIN PHYSIOLOGIC SUBSTRATE FOR ZIP14 IS NEITHER IRON NOR ZINC**
Supak Jenkitkasemwong, PhD and Mitchell Knutson, PhD
University of Florida, USA
Presented By: Mitchell Knutson, PhD
- Poster #174** **INTESTINAL HEPHAESTIN IS NECESSARY FOR OPTIMAL IRON ABSORPTION IN PREGNANT MICE, BUT IS DISPENSABLE DURING LACTATION**
Caglar Doguer, PhD¹, Jung-Heun Ha, PhD¹, Shireen R.L. Flores, MS¹, Tao Wang, MS^{1,2} and James F. Collins, PhD¹
¹University of Florida; ²Sichuan University
Presented By: Caglar Doguer, PhD
- Poster #175** **TRANSCRIPTIONAL REGULATION OF TRANSFERRIN RECEPTOR BY HEME IN ERYTHROID CELLS**
Daniel Garcia dos Santos, PhD¹, Amel Hamdi, PhD², Matthias Schranzhofer, PhD¹, Nam-Chun Lok, PhD³ and Prem Ponka, MD, PhD²
¹Lady Davis Institute, Jewish General Hospital; ²Lady Davis Institute, Jewish General Hospital/ Physiology Department, McGill University; ³Department of Chemistry, The University of Hong Kong
Presented By: Daniel Garcia-Santos, PhD
- Poster #176** **FURTHER EVIDENCE THAT INTESTINAL COPPER ABSORPTION DOES NOT OCCUR THROUGH DMT1 BUT THROUGH CTR1 AND A CHLORIDE DEPENDENT UPTAKE TRANSPORTER, USING THE CACO2 CELL MODEL**
Adrian Ricarte, BS, Aleksander Wertz, undergraduate, Yuseinis Gutierrez, undergraduate, Angelica Valadez, undergraduate, Theodros Kidane, MS and Maria Linder, PhD
California State University Fullerton, USA
Presented By: Adrian Ricarte, BS

- Poster #177** **STEPS IN THE MOBILIZATION AND RELEASE OF FERRITIN IRON DURING STIMULATION OF HEMATOPOIESIS**
 Maria Linder, PhD¹, Alice La, BS Biochem¹, Trinity Nguyen, BS Biochem¹, Ketson Tran, BS Biochem¹, Eric Sauble, MS¹, David Tu, BS Biochem¹, Angelica Gonzalez, MS¹, Theodros Kidane, MS¹, Cesar Soriano, BS Biochem¹, Jessica Morgan, BS Biochem¹, Michael Doan, BS Biochem¹, Diane Jun, Undergraduate¹, Cia– Yu Wang, PhD² and Mitchell Knutson, PhD²
¹California State University Fullerton; ²University of Florida, USA
 Presented By: Maria C. Linder, PhD
- Poster #178** **A MATHEMATICAL MODEL OF IRON DYNAMICS IN A MOUSE**
 Jignesh Parmar, PhD and Pedro Mendes, PhD
 Center for Quantitative Medicine, UCONN Health
 Presented By: Jigneshkumar Parmar, PhD
- Poster #179** **A GLUTAREDOXIN– BOLA COMPLEX SERVES AS AN IRON–SULFUR CLUSTER CHAPERONE FOR THE CYTOSOLIC CLUSTER ASSEMBLY MACHINERY**
 Avery Frey, PhD¹, Dan Palenchar¹, Kym Zumbrennen¹, Toshiki Yabe¹, Ajay Vashisht², Justin Wildemann¹, James Wohlschlegel² and Caroline Philpott¹
¹National Institutes of Health– NIDDK; ²Department of Biological Chemistry, UCLA
 Presented By: Avery Frey, PhD
- Poster #180** **NOVEL SENSORS FOR SIMULTANEOUS DETECTION OF LABILE Fe²⁺ AND Fe³⁺ BASED ON IN VITRO– SELECTED DNAZYMES**
 Ryan Lake, BA¹, Seyed– Fakhreddi Torabi, PhD², Peiwen Wu, PhD² and Yi Lu, PhD¹
¹Department of Chemistry, University of Illinois Urbana– Champaign; ²Department of Biochemistry, University of Illinois Urbana– Champaign
 Presented By: Ryan Lake, BA
- Poster #181** **ERYTHROFERRONE EXPRESSION LEVELS IN MYELODYSPLATIC SYNDROMES SHOW CLINICAL RELEVANCE**
 Augusta Di Savino, Arianna Savi, Student, Daniela Gallo, MD, Valentina Gaidano, MD, Patrizia Scaravaglio, BSc, Mauro Mezzabotta, MD, Giuseppe Saglio, MD, PhD, Daniela Cilloni, MD, PhD and De Gobbi Marco, MD, PhD
 Department of Clinical and Biological Sciences
 Presented By: Augusta Di Savino, PhD
- Poster #182** **EFFECT OF ERYTHROPOIETIN ON IRON HOMEOSTASIS IN Tmprss6– MUTATED MASK MICE**
 Jana Frydlova², Zuzana Rychtarcikova³, Iuliia Gurieva², Martin Vokurka², Jaroslav Truksa¹ and Jan Krijt²
¹Czech Academy of Sciences, Institute of Biotechnology; ²Institute of Pathological Physiology, First Faculty of Medicine, Charles University, Prague, Czech Republic; ³Institute of Biotechnology, BIOCEV Research Center, Czech Academy of Sciences, Vestec, Czech Republic
 Presented By: Jaroslav Truksa, PhD
- Poster #183** **THE ROLE OF GDF11 IN THE TREATMENT OF β–THALASSEMIA**
 Rea Oikonomidou, MD¹, Amaliris Gonzalez, PhD, Ping La, PhD, Vania Lo Presti, Ritama Gupta, Carla Casu, PhD, Laura Breda, PhD, Rajasekhar NVS Suragani, PhD², Ravi Kumar, PhD and Stefano Rivella, PhD¹
¹Children's Hospital of Philadelphia; ²Acceleron
 Presented By: Stefano Rivella, PhD
- Poster #184** **THE HIGH–RESOLUTION CRYSTAL STRUCTURE OF THE GLOBULAR DOMAIN OF MOUSE ERFE**
 Kirsty McHugh, DPhil Clinical Medicine, Jing Jin, Joao Arezes, Reema Jasuja, Alexander Drakesmith, Simon Draper and Matt Higgins
 Oxford University, U.K.
 Presented By: Kirsty McHugh, PhD
- Poster #185** **IDENTIFICATION OF RNAi TECHNOLOGY TO TARGET TRANSFERRIN RECEPTOR 1 FOR REDUCTION OF HEMICHROME FORMATION IN β–THALASSEMIA**
 Amaliris Gonzalez, PhD¹, Valentina Ghiaccio², Laura Breda, PhD, Yelena Ginzburg, MD³, Robert Fleming, MD⁴ and Stefano Rivella, PhD
¹Children's Hospital of Philadelphia; ²Università degli studi di Cagliari; ³Mount Sinai Medical Center, NY; ⁴Saint Louis University
 Presented By: Amaliris Gonzalez, PhD
- Poster #186** **EX VIVO GENE THERAPY APPROACH BY TARGT TECHNOLOGY FOR THE TREATMENT OF β–THALASSEMIA INTERMEDIA**
 Carla Casu, Vania Lo Presti, Emir O'Hara, Garry Neil, Reem Miari, Nir Shapir and Stefano Rivella
 The Children's Hospital of Philadelphia, USA
 Presented By: Carla Casu, PhD
- Poster #187** **A NOVEL ROLE FOR ZIP8 IN ERYTHROPOIESIS**
 Supak Jenkitkasemwong, PhD, Wei Zhang, PhD and Mitchell Knutson, PhD
 University of Florida, USA
 Presented By: Supak Jenkitkasemwong, PhD

- Poster #188** **GLYCINE TRANSPORTER 1 PLAYS A CRUCIAL ROLE IN HEMOGLOBINIZATION**
Daniel Garcia dos Santos, PhD¹, Matthias Schranzhofer, PhD¹, Richard Bergeron, MD², Alex D Sheftel, PhD³ and Prem Ponka, MD, PhD⁴
¹Lady Davis Institute, Jewish General Hospital; ²Ottawa Hospital Research Institute, University of Ottawa; ³Spartan Bioscience Inc/High Impact Editing; ⁴Lady Davis Institute for Medical Research, Jewish General Hospital/Physiology Department, McGill University
Presented By: Daniel Garcia-Santos, PhD
- Poster #189** **HEME OXYGENASE 1 DIRECTS STRESS-INDUCED REMODELING OF IRON- RECYCLING MACROPHAGES**
Carine Fillebeen, PD¹, Daniel Garcia-Santos, PhD¹, Konstantinos Gkouvatsos, MD¹, Saljoughian Noushin, PhD², Louis- Philippe Leroux, PhD², Maritza Jaramillo, PhD², Tina Haliotis, MD¹, Marzel Buffler, PhD³, Christiane Becker, PhD³, Klaus Schümann, MD³, Prem Ponka, MD¹ and Kostas Pantopoulos, PhD¹
¹Lady Davis Institute for Medical Research/McGill University; ²INRS Institut Armand Frappier Research Centre; ³Science Center Weihenstephan, Technical University Munich
Presented By: Kostas Pantopoulos, PhD
- Poster #190** **IDENTIFICATION OF NOVEL LOCI ASSOCIATED WITH HEMATOLOGICAL TRAITS IN MICE**
Brie Fuqua, Stela McLachlan, Richard C. Davis, Simon T. Hui, Nam Che, Zhiqiang Zhou, Carmen Ng, Claire Yukhtman, Raffi Gharakhanian, Hannah Qi, Milagros C. Romay, Calvin Pan, Yehudit Hasin- Brumshtein, Dongyi Lu, Brian W. Parks, Eleazar Eskin, Aldons J. Lusis and Chris D. Vulpe
University of Florida and University of California, Los Angeles
Presented By: Brie Fuqua, BS, PhD
- Poster #191** **IMATINIB AND SPIRONOLACTONE SUPPRESS HEPCIDIN EXPRESSION**
Katarzyna Mleczko- Sanecka¹, Debora Call², Ana Rita da Silva², Nikolai Schmeer, Melanie Kiessig, Georg Damm and Martina Muckenthaler
¹International Institute of Molecular and Cell Biology, Warsaw, Poland; ²Department of Pediatric Oncology, Hematology and Immunology, University of Heidelberg, Germany
Presented By: Katarzyna Mleczko-Sanecka, PhD
- Poster #192** **FASTING INCREASES HEPATIC HEPCIDIN EXPRESSION AND CAN OVERCOME THE EFFECT OF HFE DELETION IN MICE**
Cornel Mirciov, BSc, Sarah Wilkins, BSc, Greg Anderson, PhD and David Frazer, PhD
Iron Metabolism Laboratory, QIMR Berghofer Medical Research Institute, Brisbane, Australia
Presented By: David Frazer, PhD
- Poster #193** **EFFECT OF DIETARY VITAMIN D SUPPLEMENTATION ON SERUM HEPCIDIN LEVELS IN MICE WITH ACUTE INFLAMMATION**
Abitha Sukumaran, Larisa Lozovatsky, MS and Karin E Finberg, MD, PhD
Yale University School of Medicine, USA
Presented By: Abitha Sukumaran, PhD
- Poster #194** **THE PROTECTIVE ROLE OF HAPTOGLOBIN/HEMOPEXIN AXIS IN ANKYLOSING SPONDYLITIS- DRIVEN SPINAL CORD INJURY**
Ana Catarina Vaz Carreto Martins, MSc², Illyane Sofia Martins Lima, MSc² and Raffaella Gozzelino, PhD¹
¹Chronic Diseases Research Center /NOVA Medical School; ²CEDOC/NOVA Medical School
Presented By: Raffaella Gozzelino, PhD
- Poster #195** **INCREASING DIETARY IRON INTAKE ANTAGONIZES COPPER METABOLISM IN A DOSE-DEPENDENT FASHION IN WEANLING RATS**
Jung- Heun Ha, PhD¹, Caglar Doguer, PhD¹, Shireen R. L. Flores, MS¹, Tao Wang, MS^{1,2}, Sun Young Jeong, MS¹ and James F. Collins, PhD¹
¹University of Florida; ²Sichuan University
Presented By: Jung- Heun Ha, PhD
- Poster #196** **A SINGLE ADAPTABLE COCHAPERONE-SCAFFOLD COMPLEX DELIVERS NASCENT IRON-SULFUR CUSTERS TO MAMMALIAN RESPIRATORY CHAIN COMPLEXES I-III**
Nunziata Maio, PhD¹, Ki Soon Kim, PhD², Anamika Singh² and Tracey Rouault, MD²
¹National Institutes of Health; ²NIH/NICHD
Presented By: Nunziata Maio, PhD
- Poster #197** **ENTRY OF IRON AND OTHER METAL IONS INTO MITOCHONDRIA**
Michael Garrick, PhD¹, Natascha Wolff, PhD², Lin Zhao, MD¹, Laura Garrick, PhD¹ and Frank Thévenod, MD, PhD²
¹UB; ²Witten/Herdecke University
Presented By: Michael Garrick, PhD
- Poster #198** **A NOVEL PLAYER IN THE REGULATION OF HEPCIDIN REVEALED BY THE MTOR INHIBITOR RAPAMYCIN**
Laura Silvestri, PhD, Silvia Colucci, BSc, Alessia Pagani, PhD, Irene Artuso, BSc, Mariateresa Pettinato, BSc, Antonella Nai, PhD and Clara Camaschella, MD
IRCCS San Raffaele Scientific Institute & San Raffaele Vita- Salute University
Presented By: Laura Silvestri, PhD

- Poster #199** **WORLDWIDE STANDARDIZATION OF SERUM HEPCIDIN ASSAYS**
Dorine Swinkels, MD, PhD
Radboudumc
Presented By: Dorine W. Swinkels, MD, PhD
- Poster #200** **MARINE SPONGE EXTRACTS AS A PROMISING SOURCE OF IRON CHELATORS**
Hector Aguilar Vitorino, PhD¹ and Breno Pannia Espósito, PhD²
¹University of São Paulo – USP; ²University of São Paulo
Presented By: Hector Aguilar Vitorino, PhD
- Poster #201** **NUCLEAR HORMONE RECEPTOR– 14 INTEGRATES IRON UPTAKE AND INNATE IMMUNITY IN CAENORHABDITIS ELEGANS THROUGH PQM–1 SIGNALING**
Elizabeth Leibold, PhD, Cole P. Anderson, PhD, Steven J. Romney, BS and Paul Rindler, PhD
University of Utah, USA
Presented By: Elizabeth A Leibold, PhD
- Poster #202** **IMPROVED PATIENT–REPORTED OUTCOMES WITH A FILM–COATED VERSUS DISPERSIBLE TABLET FORMULATION OF DEFERASIROX: RESULTS FROM THE RANDOMIZED, PHASE II ECLIPSE STUDY**
Ali T Taher¹, Raffaella Origa², Silverio Perrotta³, Alexandra Kouraklis⁴, Giovan Battista Ruffo⁵, Antonis Kattamis⁶, Ai– Sim Goh⁷, Annelore Cortoos⁸, Vicky Huang⁸, Marine Weill⁹, Raquel Merino Herranz⁹ and John B Porter¹⁰
¹American University of Beirut Medical Center; ²University of Cagliari; ³Second University of Naples; ⁴University of Patras Medical School; ⁵U.O.C. Ematolog. Con Talassemia; ⁶University of Athens; ⁷Hospital Pulau Pinang; ⁸Novartis Pharmaceuticals Corporation; ⁹Novartis Pharma AG; ¹⁰University College London
Presented By: John B. Porter, MA, MD, FRCP DRCPATH
- Poster #203** **LONG–TERM IRON CHELATION THERAPY WITH DEFERASIROX IN PEDIATRIC PATIENTS WITH TRANSFUSIONAL HEMOSIDEROSIS (ENTRUST)**
Elliott Vichinsky¹, Amal El–Beshlawy², Azzam Alzoebie³, Annie Kamdem⁴, Suzanne Koussa⁵, Thirachit Chotsampancharoen⁶, Andreas Bruederle⁷, Jackie Han⁸ and Mohsen Elalfy⁹
¹Children’s Hospital & Research Center; ²Cairo University; ³Sheikh Khalifa Medical City; ⁴Centre Hospitalier Intercommunal; ⁵Chronic Care Center; ⁶Songklanagarind Hospital; ⁷Novartis Pharma AG; ⁸Novartis Pharmaceuticals; ⁹Ain Shams University
Presented By: Elliott Vichinsky, MD
- Poster #204** **LABILE PLASMA IRON PREDICTS FOR SURVIVAL IN PATIENTS UNDERGOING ALLOGENIC–STEM CELL TRANSPLANTATION – RESULTS FROM THE PROSPECTIVE MULTICENTER GERMAN–AUSTRIAN ALLIVE TRIAL**
Martin Wermke, Julia Eckoldt, Katharina Goetze, Stefan Klein, Gesine Bug, Friedrich Stoelzel, Malte von Bonin, Johannes Schetelig, Michael Laniado, Verena Plodeck, Wolf– Karsten Hofmann, Gerhard Ehninger, Martin Bornhaeuser, Dominik Wolf, Igor Theurl and Uwe Platzbecker
TU Dresden, Medical Faculty, Department of Medicine I
Presented By: Martin Wermke
- Poster #205** **EXPANDING THE CLINICAL AND MOLECULAR SPECTRUM OF FERROPORIN DISEASE**
André Viveiros, MD, Benedikt Schaefer, MD, Armin Finkenstedt, MD, Benjamin Henninger, MD, Karin Nachbaur, MD, Herbert Tilg, MD and Heinz Zoller, MD
Medical University Innsbruck
Presented By: Andre Viveiros, MD
- Poster #206** **HEPCIDIN IN HEALTHY AND ANEMIC PREGNANT WOMEN**
Valerii Demikhov, MD, Manel Ayari, Igor Mirov, MD, Prof, Elena Zinovieva, Elena Demikhova and Olga Zhurina, PhD
Ryazan State Medical University, Russia
Presented By: Valerii Demikhov, MD
- Poster #207** **HOMOMERIC AND HETEROMERIC RECEPTOR COMPLEX FORMATION OF BONE MORPHOGENETIC TYPE I RECEPTORS ALK2 AND ALK3**
Lisa Traeger¹, Inka Gallitz, PhD¹, Rohit Sekhri¹, Nicole Bäumer, PhD², Tanja Kuhlmann, MD³, Claudia Kemming³, Thomas B. Bartnikas, MD, PhD⁴ and Andrea U. Steinbicker, MD, MPH¹
¹Department of Anesthesiology, Intensive Care and Pain Medicine, University Hospital Muenster, Muenster, Germany; ²Department of Medicine A, Hematology and Oncology, University Hospital Muenster, Muenster, Germany; ³Institute for Neuropathology, University Hospital Muenster, Muenster, Germany; ⁴Department of Pathology and Laboratory Medicine, Brown University, Providence, USA
Presented By: Lisa Traeger
- Poster #208** **THE STRUCTURAL AND FUNCTIONAL RELATIONSHIPS OF TRANSFERRIN RECEPTOR 2–MEDIATED HEPCIDIN SIGNALING**
Mark Kleven and Caroline Enns, PhD
Oregon Health & Science University, USA
Presented By: Mark Kleven, PhD

- Poster #209** **HAMP1 mRNA AND PLASMA HEPCIDIN LEVELS ARE INFLUENCED BY SEX AND STRAIN BUT DON'T PREDICT TISSUE IRON LEVELS IN INBRED MICE**
 Stela McLachlan, PhD¹, Kathryn Page, PhD², Seung– Min Lee, PhD³, Erika Valore, Ms⁴, Simon Hui, PhD⁴, Brie Fuqua, PhD⁵, Aldons Lulis, PhD⁴, Tomas Ganz, PhD⁴, Elizabeta Nemeth, PhD⁴ and Chris Vulpe, MD PhD⁶
¹University of Edinburgh; ²University of California, Berkeley; ³Yonsei University, Seoul, Korea; ⁴University of California at Los Angeles; ⁵University of California at Los Angeles and University of Florida; ⁶University of Florida
 Presented By: Brie Fuqua, BS, PhD
- Poster #210** **DEVELOPMENT OF A NOVEL ASSAY FOR STUDYING THE HEPCIDIN–FERROPORTIN AXIS AND ITS APPLICATION TO CHARACTERIZATION OF A NEW FERROPORTIN DISEASE– CAUSING MUTATION**
 Nathan Subramaniam, PhD, Cameron McDonald, PhD, Lesa Ostini, BSc, Diploma, Gautam Rishi, PhD, David Iser, MD, Annabel Iser, MD and Daniel Wallace, PhD
 Institute of Health and Biomedical Innovation, Queensland University of Technology and QIMR Berghofer Medical Research Institute, Brisbane, Australia
 Presented By: Daniel Wallace, PhD
- Poster #211** **INAPPROPRIATE EXPRESSION OF HEPCIDIN IN THE LIVER OF PROFILIN–2 KNOCK OUT MICE**
 Sara Lucietti², Bruno Galy, PhD³, Lucia Gutierrez, PhD⁴, Michael Reinke⁵, Jorge Couso², Maya Shvartsman, PhD⁶, Antonio Di Pascale, PhD⁷, Walter Witke, PhD⁵, Matthias W. Hentze, PhD, MD⁸, Pietro Pilo Boyl, PhD⁵ and Mayka Sanchez, Dr¹
¹Josep Carreras Leukaemia Research Institute ; ²Josep Carreras Leukaemia Research Institute , Iron Metabolism: Regulation and Disease group; ³Division of Virus– associated Carcinogenesis, German Cancer Research Centre (DKFZ), Heidelberg, Germany; ⁴Department of Biomaterials and Bioinspired Materials, Instituto de Ciencia de Materiales de Madrid (ICMM– CSIC), Madrid, Spain; ⁵Institute of Genetics, University of Bonn, Bonn, Germany; ⁶European Molecular Biology Laboratory (EMBL), Monterotondo, Italy; ⁷Department of Pharmacy, University of Naples Federico II, Naples, Italy; ⁸European Molecular Biology Laboratory (EMBL), Heidelberg, Germany
 Presented By: Mayka Sanchez Fernandez, PhD
- Poster #LB26** **IMMUNOASSAY FOR HUMAN SERUM ERYTHROFERRONE**
 Tomas Ganz, PhD, MD, Grace Jung, MS, Arash Naeim, MD, Yelena Ginzburg, MD, Zahra Pakbaz, MD, Patrick Walter, PhD, Leon Kautz, PhD and Elizabeta Nemeth, PhD
 UCLA, USA
 Presented By: Tomas Ganz, PhD, MD
- Poster #LB27** **ANTI– INFLAMMATORY EFFECT OF FGF– 23 INHIBITION PREVENTS LIVER HEPCIDIN UPREGULATION IN A CHRONIC KIDNEY DISEASE MOUSE MODEL**
 Rafiou Agoro, PhD¹, Anna Montagna, PhD¹, Onyedikachi Aligbe, BA¹, Regina Goetz, PhD¹, Moosa Mohammadi, PhD¹, Stefano Rivella, PhD² and Despina Sitara, PhD¹
¹New York University; ²Children's Hospital of Philadelphia
 Presented By: Rafiou Agoro, MSc
- Poster #LB28** **ROLE OF C– JUN NH(2)– TERMINAL KINASE AND IRON IN CELLULAR MODEL OF ACUTE PANCREATITIS**
 Zbigniew Sledziński, MD PhD¹, Michal Wozniak, MD PhD², Maciej Sledzinski, MD² and Jędrzej Antosiewicz, PhD³
¹Medical University of Gdańsk; ²Medical University of Gdansk, Poland; ³Gdansk University of Physical Education and Sport, Gdansk, Poland
 Presented By: Zbigniew Sledzinski, MD, PhD
- Poster #LB29** **EXERCISE INDUCED–INCREASE IN BLOOD HEPCIDIN IS THE SAME IN WT AND HETEROZYGOTES FOR HFE H63D**
 Jędrzej Antosiewicz, PhD¹, Jakub Kortas, PhD², Maja Tomczyk, MS², Krzysztof Prusik,, PhD², Katarzyna Prusik, PhD², Joanna Jaworska, MS², Barbara Kaczorowska, MD² and Ewa Ziemann, PhD²
¹Gdansk University of Physical Education and Sport, Kazimierza Go'rskiego 1.; ²Gdansk University of Physical Education and Sport, Gdansk, Poland
 Presented By: Jędrzej Antosiewicz, PhD
- Poster #LB30** **BACTERIAL DYSBIOSIS IN COLON AND BREAKDOWN OF MUCOSAL PERMEABILITY BARRIER IN A MOUSE MODEL OF HEMOCHROMATOSIS**
 SATHISH SIVAPRAKASAM¹, BOJANA RISTIC, BS¹, ABDUL N HAMOOD², PhD¹, NITHYA S MUDALIAR, MS¹, JANE COLMER HAMOOD, PhD¹, KAMESWARA RAO KOTTAPALLI, PhD² and VADIVEL GANAPATHY, PhD¹
¹Texas Tech University Health Sciences Center; ²Texas Tech University
 Presented By: Sathish Sivaprakasam, PhD
- Poster #LB31** **IDENTIFICATION AND CHARACTERIZATION OF A NOVEL NA+– COUPLED, CITRATE– DEPENDENT TRANSPORT SYSTEM FOR NON–TRANSFERRIN–BOUND IRON**
 Jiro Ogura, PhD¹, Ellappan Babu, PhD¹, Seiji Miyauchi, PhD² and Vadivel Ganapathy, PhD¹
¹Texas Tech University Health Sciences Center; ²Toho University
 Presented By: Jiro Ogura, PhD

- Poster #LB32** **UNCOMMON IRON CHELATORS AURINTRICARBOXYLIC ACID (ATA) AND LIPOIC ACID (LA) AS ANTICANCER AGENTS**
 Michal Wozniak¹, Alicja Kuban– Jankowska, PhD², Magdalena Gorska– Ponikowska, PhD², Kamlesh Sahu, PhD³ and Jack Tuszynski, PhD⁴
¹Medical University of Gdansk, Poland; ²Medical Chemistry Department, Medical University of Gdansk, Gdansk, Poland; ³Department of Medical Microbiology and Immunology, University of Alberta, Edmonton, Canada; ⁴Department of Oncology, University of Alberta, Edmonton, Canada
 Presented By: Matt Wozniak
- Poster #LB33** **SMART IRON DELOCALIZATORS IN COMBINATION WITH NEW GPRX4 PROTECTOR PREVENT DAMAGE OF TRANSPLANTED KIDNEY FROM FERROPTOTIC INSULT**
 Narcyz Knap¹, Michal Wozniak, MD PhD², Magdalena Gorska– Ponikowska, PhD², Alicja Kuban– Jankowska, PhD², Ryszard Smolenski, MD PhD³, Michal Zmijewski, PhD⁴, Jedrzej Antosiewicz, PhD⁵ and Zbigniew Sledzinski, MD PhD⁶
¹Medical University of Gdansk, Poland; ²Department of Medical Chemistry, Medical University of Gdansk; ³Department of Biochemistry, Medical University of Gdansk; ⁴Department of Histology, Medical University of Gdansk; ⁵Department of Bioenergetics and Physiology of Exercise Medical University of Gdansk; ⁶Department of General, Endocrine Surgery and Transplantation, Medical University of Gdansk
 Presented By: Narcyz Knap
- Poster #LB34** **INDEPENDENT RISK FACTORS FOR BIOPSY– PROVEN CIRRHOSIS IN HEMOCHROMATOSIS: A STUDY OF 110 HFE p.C282Y HOMOZYGOTES WITH GNPAT p.D519G GENOPTYING**
 James Barton, MD^{2,13}, Christine McLaren, PhD³, Wen– pin Chen, MS⁴, Grant Ramm, PhD⁵, Gregory Anderson, PhD⁶, Lawrie Powell, MD, PhD⁶, V. Nathan Subramaniam, PhD⁷, Paul Adams, MD⁸, Pradyumna Phatak, MD⁹, Lyle Gurrin, PhD¹⁰, John D. Phillips, MD¹¹, Charles J. Parker, PhD¹¹, Mary J. Edmond, PhD¹² and Gordon McLaren, MD^{1,3}
¹Tibor Rubin VA Medical Center; ²Southern Iron Disorders Center; ³University of California, Irvine; ⁴Chao Family Comprehensive Cancer Center; ⁵QIMR Berghofer Medical Research Institute; ⁶The University of Queensland; ⁷Queensland University of Technology; ⁸London Health Sciences Centre; ⁹Rochester General Hospital; ¹⁰The University of Melbourne; ¹¹University of Utah School of Medicine; ¹²University of Washington; ¹³University of Alabama at Birmingham
 Presented By: Gordon McLaren, MD
- Poster #LB35** **IDENTIFICATION OF THE NUCLEATION SITE FOR IRON BIOMINERALIZATION IN L– FERRITIN BY X– RAY CRYSTALLOGRAPHY**
 Silvia Ciambellotti^{1,3}, Cecilia Pozzi², Caterina Bernacchioni^{1,3}, Flavio Di Pisa², Stefano Mangani² and Paola Turano^{1,3}
¹Center for Magnetic Resonance, University of Florence; ²Department of Biotechnology, Chemistry, and Pharmacy, University of Siena; ³Department of Chemistry, University of Florence
 Presented By: Silvia Ciambellotti
- Poster #LB36** **IDENTIFICATION OF STAPHYLOCOCCUS AUREUS IRON ACQUISITION LOCI REQUIRED FOR REPLICATION WITHIN MACROPHAGES**
 David Heinrichs and Ron Flannagan, PhD
 University of Western Ontario, London, Ontario, Canada
 Presented By: David Heinrichs, PhD
- Poster #LB37** **THE CORE COMPONENT OF THE MITOCHONDRIAL CALCIUM UNIPORTER (MCU) PROMOTES ACETAMINOPHEN HEPATOXICITY AND IS REQUIRED FOR MITOCHONDRIAL Fe²⁺ UPTAKE**
 Jiangting Hu, MD, PhD², James Weemhoff, PhD³, Andaleb Kholmukhamedov, MD², Hartmut Jaeschke, PhD³, Anna– Liisa Nieminen, PhD² and John Lemasters, MD, PhD¹
¹Medical University of South Carolina; ²Medical University of South Carolina; ³University of Kansas Medical Center
 Presented By: John Lemasters, MD, PhD
- Poster #LB38** **PRETREATMENT OF RICE SEEDS WITH IRON AND ZINC DECREASES CADMIUM TRANSPORT IN RICE DURING GROWTH**
 Di Guan
 Hunan Academy of Agricultural Sciences, China
 Presented By: Di Guan
- Poster #LB39** **ERFE– INDEPENDENT REGULATION OF HEPCIDIN IN A MOUSE MODEL OF INFLAMMATORY BOWEL DISEASE**
 Ugo Sardo, Benjamin Billoré, BSc, Perrine Rousset, MSc and Leon Kautz, PhD
 Inserm U1220/IRSD
 Presented By: Ugo Sardo
- Poster #LB40** **RESTORED IRON TRANSPORT BY A SMALL MOLECULE PROMOTES GUT IRON ABSORPTION AND HEMOGLOBINIZATION IN MICE, RATS, AND ZEBRAFISH**
 Alexander Cioffi, Anthony Grillo, Anna SantaMaria and Martin Burke, MD/PhD
 University of Illinois at Urbana– Champaign, USA
 Presented By: Alexander Cioffi

- Poster #LB41** **RESTORED IRON TRANSPORT BY A SMALL MOLECULE PROMOTES GUT IRON ABSORPTION AND HEMOGLOBINIZATION IN MICE, RATS, AND ZEBRAFISH**
Anna SantaMaria, Anthony Grillo, Alex Cioffi and Martin Burke, MD/PhD
University of Illinois at Urbana– Champaign, USA
Presented By: Anna SantaMaria
- Poster #LB42** **TREATING DARK CIRCLE UNDER THE EYE BY ADDRESSING IRON IN FERRITIN AND HEMOGLOBIN**
Xi Huang, PhD
Marivan Skincare Inc.
Presented By: Xi Huang, PhD
- Poster #LB43** **RETINAL IRON OVERLOAD ACCELERATES THE PROGRESSION OF DIABETIC RETINOPATHY**
Kapil Chaudhary, MD, PhD², Wanwisa Promsote, PhD³, Sudha Ananth, MSc⁴, Rajalakshmi Veeranan–Karmegam, MSc⁴, Amany Tawfik, PhD⁴, Pamela Martin, PhD⁴, Sylvia Smith, PhD⁴, Vadivel Ganapathy, PhD⁵ and Jaya P. Gnana– Prakasam, PhD¹
¹Saint Louis University, St Louis, MO; ²Washington University, St Louis, MO; ³National Institute of Health, Bethesda, MD; ⁴Augusta University, Augusta, GA; ⁵Texas Tech Health Sciences University, Lubbock, TX
Presented By: Jaya P. Gnana– Prakasam, PhD
- Poster #LB44** **MITOFERRIN 2 ASSOCIATES WITH MCU, THE CORE PROTEIN OF THE MITOCHONDRIAL CALCIUM UNIPORTER**
Anna– Liisa Nieminen, Monika Gooz, MD, PhD and John Lemasters, MD, PhD
Medical University of South Carolina, USA
Presented By: Anna– Liisa Nieminen, PhD
- Poster #LB45** **DISTAL TUBULAR IRON LOADING IN EXPERIMENTAL FOCAL SEGMENTAL GLOMERULOSCLEROSIS**
Rachel van Swelm, Henry Dijkman, Jack Wetzels, Erwin Wiegerinck, Rian Roelofs, Johan van der Vlag, Bart Smeets and Dorine Swinkels
Radboud University Medical Center, Netherlands
Presented By: Rachel Van Swelm, PhD
- Poster #LB46** **IRON REGULATORY PROTEINS REGULATE FRATAXIN AND ISCU TO SECURE MITOCHONDRIAL FUNCTION**
Huihui Li, BS and Kuanyu Li
Nanjing University, China
Presented By: Kuanyu Li
- Poster #LB47** **CHARACTERIZATION OF IRON HANDLING IN HEALTHY AND DISEASED HUMAN RENAL BIOPSIES**
Sanne van Raaij¹, Rachel van Swelm, PhD¹, Karlijn Bouman¹, Maaïke Bouman¹, Paul Bass, MD², Robert Unwin, PhD², Jeanne Pertijs¹, Dorine Swinkels, PhD¹ and Kaila Srari, PhD³
¹Radboud University Medical Center, Nijmegen, the Netherlands; ²Royal Free Hospital, London, United Kingdom; ³University College London, London, United Kingdom
Presented By: Sanne van Raaij
- Poster #LB48** **ZIP14 DEFICIENCY PREVENTS IRON LOADING OF THE ANTERIOR PITUITARY AND ADRENAL GLAND**
Joseph Olivera, Master of Science in Food Science and Human Nutrition, Supak Jenkitkasemwong, PhD in Nutritional Sciences and Mitchell Knutson, PhD in Nutrition
University of Florida, USA
Presented By: Joseph Olivera
- Poster #LB49** **DELETION OF BMP6 WORSENS THE PHENOTYPE OF HJV–ASSOCIATED HEMOCHROMATOSIS**
Chloé Latour, Céline Besson-Fournier, Ophélie Gourbeyre, Delphine Meynard, PhD, Marie-Paule Roth, MD and Hélène Coppin, PhD
IRSD Inserm
Presented By: Marie-Paule Roth, MD, PhD
- Poster #LB50** **HUMAN HEPATIC HEPARAN SULFATE REGULATES HEPCIDIN EXPRESSION**
Ferdous Anower– E– Khuda, PhD¹, Maura Poli, PhD², Philip Gordts, PhD³, Paolo Arosio, PhD² and Jeffrey Esko, PhD⁴
¹University of California, San Diego; ²Department of Molecular and Translational Medicine, University of Brescia, Viale Europa 11, Brescia, Italy; ³Department of Medicine, University of California, San Diego, La Jolla, CA; ⁴Department of Cellular and Molecular Medicine, University of California, San Diego, La Jolla, CA
Presented By: Ferdous Anower– E– Khuda, PhD

- Poster #LB51** **URATE OFFSETS MANGANESE-INDUCED IRON DYSHOMEOSTASIS AND NEURONAL DEGENERATION**
 Rachit Bakshi, PhD², Vivek Venkataramani, MD^{3,9}, Sanghamitra Bandyopadhyay, PhD⁴, Yadong Huang, PhD¹, Yanyan Liu, PhD¹, Xudong Huang, PhD¹, Ashley Bush, MD¹, Catherine Cahill, PhD¹, Debomoy Lahiri, PhD⁵, Hong Jiang, MD⁶, Fudi Wang, MD⁷, Ann Smith, PhD⁸ and Jack Rogers, PhD¹
¹MGH; ²Neurochemistry lab, Depts. Neurology and Psychiatry MGH; ³Department of Hematology and Medical Oncology, University Medicine Göttingen; ⁴Developmental Toxicology Division, India; ⁵Department of Psychiatry, Indiana University School of Medicine, Indianapolis, IN, USA; ⁶Dept. Physiology, Qingdao University, China; ⁷Department of Nutrition Zhejiang University, China; ⁸School of Biological Sciences, University of Missouri– K.C., Kansas City, MO, USA.; ⁹Cell Biology Program, Memorial Sloan Kettering Cancer Center, New York, New York, USA
 Presented By: Jack Rogers, PhD
- Poster #LB52** **HEPCIDIN DETERMINATION IN BETA THALASSAEMIA MAJOR CHILDREN BY ELISA AND QPCR**
 Yvonne Elliott, PhD¹, Shraddha Bhange, BSc¹, Rob Evans, PhD² and Sebastien Farnaud, PhD¹
¹Coventry University; ²Brunel University
 Presented By: Sebastien Farnaud, PhD
- Poster #LB53** **HFE mRNA EXPRESSION IS NOT DIRECTLY RELATED TO IRON SENSING BUT IS RELATED TO TFRC EXPRESSION**
 Kosha Mehta, PhD², Robert Evans, PhD³, Vinood Patel, PhD² and Sebastien Farnaud, PhD¹
¹Coventry University; ²University of Westminster; ³Brunel University
 Presented By: Sebastien Farnaud, PhD
- Poster #LB54** **PHARMACOKINETICS AND PHARMACODYNAMICS MODEL OF SYNTHETIC HUMAN HEPCIDIN LJPC- 401 FOLLOWING SINGLE DOSE ADMINISTRATION IN DOGS**
 Hong Jin, PhD¹, Wojciech Krzyzanski, PhD², Sima Patel, MS¹, Robin Marsden, BS¹, James Rolke, BS¹ and Andrew Seacat, PhD¹ ¹La Jolla Pharmaceutical Company; ²University at Buffalo
 Presented By: Hong Jin, PhD
- Poster# LB55** **INHIBITION OF INTESTINAL NON-HAEM IRON ABSORPTION BY QUERCETIN IS MEDIATED BY BOTH LUMINAL AND SYSTEMIC MECHANISMS**
 M. Lesjak^{1, 2}, S. Balesaria¹, V. Skinner¹, E. S. Debnam³, S. K. S. Srai¹
¹Research Department of Structural and Molecular Biology, Division of Biosciences, University College London, London, United Kingdom; ²Department of Chemistry, Biochemistry and Environmental Protection, Faculty of Sciences, University of Novi Sad, Trg Dositeja Obradovića, Serbia; ³Research Department of Neuroscience, Physiology and Pharmacology, Division of Biosciences, University College London, Royal Free Campus, London, United Kingdom
 Presented By: M. Lesjak

THURSDAY, MAY 11, 2017

OVERVIEW

7:00 – 18:15

Registration/Information Desk Open

Location: Centennial Hall Prefunction, Level One

19:00 – 23:30

Gala Dinner/Award Ceremony

Location: Centennial Hall, Level One

GENERAL SESSION

8:00 – 9:00

Meet the Experts II: Measurement of Iron Transport

Location: Exploration, Level Two

Moderators: Mitchell Knutson, PhD
 University of Florida
 USA

Bryan Mackenzie, PhD
 University of Cincinnati
 USA

Students/Trainees ONLY – Space is limited

9:00 – 10:30

Plenary Session VI: Heme Physiology and Pathology

Chairs: Janis L. Abkowitz, MD
 University of Washington
 USA

Ann Smith, PhD
 University of Missouri– Kansas City
 USA

9:00 – 9:30

Heme Trafficking

Speaker: Iqbal Hamza, PhD
University of Maryland
USA

9:30 – 10:00

Heme Exporter FLVCR1: Biological Role in Different Organ Systems

Speaker: Deborah Chiabrando, PhD
University of Torino
Italy

10:00 – 10:30

Inflammation, Heme and Parkinson's Disease

Speaker: Raffaella Gozzelino, PhD
Chronic Diseases Research Center (CEDOC) – Faculty of Medicine of NOVA
Portugal

10:30 – 11:00

Coffee Break

11:00 – 12:25

Concurrent Session VII: Iron, Heme and Mitochondria

Location: Optimist, Level Two

Chairs: Hideo Harigae, MD, PhD
Tohoku University
Japan

Prem Ponka, MD, PhD, FCMA
Lady Davis Institute for Medical Research
Canada

11:00 – 11:25

Congenital Sideroblastic Anemia

Speaker: Mark D. Fleming, MD, DPhil
Harvard Medical School
USA

11:25 – 11:40 #29

TARGET OF ERYTHROPOIETIN, FAM210B, REGULATES ERYTHROID HEMOGLOBINIZATION

Barry Paw, MD, PhD¹, Yvette Yien, PhD¹, Jiahai Shi, PhD², Caiyong Chen, PhD¹, Anthony Grillo⁴, Liangtao Li, MD³, Jacky Chung, PhD¹, Martin Kafina, MS¹, Paul Kingsley, PhD⁵, Julien Ablain, PhD¹, Leonard Zon, MD¹, James Palis, MD¹, Martin Burke, MD, PhD⁴, Daniel Bauer, MD, PhD¹, Stuart Orkin, MD¹, Carla Koehler, PhD⁶, John Phillips³, Jerry Kaplan³, Diane Ward, PhD³ and Harvey Lodish, PhD²
¹Harvard Medical School; ²MIT; ³Univ. Utah; ⁴Univ. Illinois, Urbana; ⁵Univ. Rochester; ⁶UCLA
Presented By: Barry Paw

11:40 – 11:55 #30

LOSS OF IRON UPREGULATES MITOCHONDRIA FERRITIN AND TRIGGERS MITOPHAGY THROUGH THE BINDING OF MITOCHONDRIA FERRITIN TO NUCLEAR RECEPTOR COACTIVATOR 4

Yuichi Hara¹, Izumi Yanatori, MD, PhD², Kyo Sasaki, MD², Sohji Nishina, MD, PhD², Fumio Kishi, MD, PhD² and Keisuke Hino, MD, PhD²
¹Kawasaki Medical School; ²Kawasaki Medical School, Japan
Presented By: Yuichi Hara

11:55 – 12:10 #31

CD13 (ALANYL AMINOPEPTIDASE OR ANPEP) IS AN ENDOCYTIC HEME-AND CLATHRIN-BINDING INTESTINAL BRUSH BORDER MEMBRANE PROTEIN WHOSE DOWN-REGULATION BLOCKS HEME-INDUCED INDUCTION OF HEME OXYGENASE

Glenn Gerhard, MD, Fan Chun, PhD, Qunyan Jin, MD, Hui Chen, PhD and Shiming Zhang, PhD
Temple University, Pennsylvania
Presented By: Glenn Gerhard

12:10 – 12:25 #32

TARGETED DELETION OF THE MOUSE MITOFERRIN2 GENE SLC25A28: MFRN1 AND MFRN2 ARE NECESSARY FOR CELL PROLIFERATION

Diane Ward¹, Alexandra Seguin, PhD¹, Xuan Jia¹, John Phillips, PhD¹, Barry Paw, MD, PhD², Jonathan Barasch, MD³ and Jerry Kaplan, PhD¹
¹University of Utah; ²Harvard; ³Columbia
Presented By: Diane Ward

11:00 – 12:30

Concurrent Session VIII: Novel Targets and Therapies in Iron Overload

Location: Legacy, Level Two

Chairs: Yelena Ginzburg, MD
Icahn School of Medicine at Mount Sinai
USA

Stefano Rivella, PhD
Children's Hospital of Philadelphia
USA

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| 11:00 – 11:15 | #33 | TFR2: A NOVEL POTENTIAL THERAPEUTIC TARGET FOR β-THALASSEMIA Antonella Nai, PhD, Maria Rosa Lidonnici, PhD, Irene Artuso, MSc, Giacomo Mandelli, PhD, Mariateresa Pettinato, MSc, Laura Silvestri, PhD, Giuliana Ferrari, PhD and Clara Camaschella, MD Division of Genetics and Cell Biology, Ospedale San Raffaele, Italy Presented By: Antonella Nai |
| 11:15 – 11:30 | #34 | POTENTIAL THERAPEUTIC APPLICATIONS OF JAK2 INHIBITORS AND HIF2α-ASO FOR THE TREATMENT OF β-THALASSEMIA INTERMEDIA AND MAJOR Carla Casu, Paraskevi Rea Oikonomidou, Vania Lo Presti, Mariam Aghajan, Shuling Guo, Abdulmalik Osheiza, Luca Melchiori, Pedro Ramos and Stefano Rivella The Children's Hospital of Philadelphia, USA Presented By: Carla Casu |
| 11:30 – 11:45 | #35 | HEME OXYGENASE 1 INHIBITION REVERSES ANEMIA IN β-THALASSEMIA MICE Daniel Garcia dos Santos, PhD ¹ , Amel Hamdi, PhD ² , Zuzana Zidova, PhD ³ , Monika Horvathova, PhD ³ and Prem Ponka, MD, PhD ² ¹ Lady Davis Institute, Jewish General Hospital; ² Lady Davis Institute, Jewish General Hospital/Physiology Department, McGill University; ³ Faculty of Medicine and Dentistry, Palacky University Presented By: Daniel Garcia dos Santos |
| 11:45 – 12:00 | #36 | HEPCIDIN MIMETIC PTG-300 FOR TREATMENT OF INEFFECTIVE ERYTHROPOIESIS AND IRON OVERLOAD Gregory Bourne, PhD ^{1,2} , Li Zhao, PhD ¹ , Ashok Bhandari, PhD ¹ , Brian Frederick, MS ¹ , Jaimee McMahon, BS ^{1,2} , Vinh Tran, BS ¹ , Jenny Zhang, PhD ^{1,2} , Adam Stephenson, PhD ^{1,2} , James Tovera, BS ¹ , Lu Bai, BS ¹ , Thamil Annamalai, MSc, M Phil ¹ , Dinesh Patel, PhD ¹ , Mark Smythe, PhD ^{1,2} and David Liu, PhD ¹ ¹ Protagonist Therapeutics, Milpitas, CA; ² Institute for Molecular Bioscience, University of Queensland, Brisbane, Australia Presented By: Gregory Bourne |
| 12:00 – 12:15 | #37 | FERROPORTIN INHIBITORS IMPROVE INEFFECTIVE ERYTHROPOIESIS AND PREVENT IRON LOADING IN A BETA-THALASSEMIA DISEASE MODEL Vania Manolova, PhD, Anna Flace, Patrick Altermatt, MSc, Hanna Sundström, PhD, Naja Nyffenegger, PhD and Franz Duerrenberger, PhD Vifor (International) AG Presented By: Vania Manolova |
| 12:15 – 12:30 | #38 | IDENTIFICATION OF GUANOSINE 5'- DIPHOSPHATE AS POTENTIALLY IRON MOBILIZER: PREVENTING THE HEPCIDIN- FERROPORTIN INTERACTION AND MODULATING THE INTERLEUKIN- 6/STAT- 3 PATHWAY Stanzin Angmo and Nitin Kumar Singhal, PhD National Agri- Food Biotechnology Institute, India Presented By: Stanzin Angmo |

12:30 – 14:00

Lunch – Interviews with the Masters

Location: *Centennial Terrace, Level Three*

Interviewer: Tomas Ganz, PhD, MD

Interviewee: Prem Ponka, MD, PhD, FCMA

14:00 – 15:30

Concurrent Session IX: Iron Deficiency and Inflammatory Iron Restriction

Location: *Optimist, Level Two*

Chairs: James Collins, PhD
University of Florida
USA

Andrea Steinbicker, MD, MPH
University Hospital Munster
Germany

14:00 – 14:15

#39

EFFECTS OF MATERNAL IRON STATUS ON PLACENTAL IRON TRANSFER

Veena Sangkhae, Allison L Fisher, Victoria Gabayan, Erika Valore, Tomas Ganz and Elizabeta Nemeth
University of California Los Angeles, USA

Presented By: Veena Sangkhae

14:15 – 14:30

#40

ALTERNATE DAY DOSING, AND SINGLE MORNING DOSES RATHER THAN B.I.D. DOSING, MAXIMIZE TOTAL AND FRACTIONAL IRON ABSORPTION FROM ORAL IRON SUPPLEMENTS: STABLE IRON ISOTOPE STUDIES IN IRON-DEPLETED WOMEN

Nicole Stoffel¹, Diego Moretti¹, Colin Cercamondi¹, Christophe Zeder¹, Dorine Swinkels², Gary Brittenham³ and Michael Bruce Zimmermann¹

¹ETH Zurich, Switzerland; ²Radboud University Medical Centre, Nijmegen, The Netherlands;

³Columbia University, New York, USA

Presented By: Nicole Stoffel

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| 14:30 – 14:45 | #41 | <p>IMPROVING SAFETY AND EFFICACY OF IRON FORTIFICATION IN AFRICA BY COMBINING IRON AND PREBIOTICS: A STABLE ISOTOPE ABSORPTION STUDY AND A RANDOMIZED CONTROLLED TRIAL IN KENYAN INFANTS</p> <p>Michael Bruce Zimmermann¹, Daniela Paganini¹, Mary Uyoga², Diego Moretti¹, Colin Cercamondi¹, Francis Mutuku³, Edith Mwasi³, Clarissa Schwab¹, Christophe Lacroix¹ and Simon Karanja² ¹ETH Zurich, Switzerland; ²JKUAT, Nairobi, Kenya; ³Msembweni Hospital, Kenya Presented By: Michael Bruce Zimmermann</p> |
| 14:45 – 15:00 | #42 | <p>RISK–BENEFIT AND COST–EFFECTIVENESS OF UNIVERSAL DISTRIBUTION OF IRON SUPPLEMENTATION AND IRON–CONTAINING MICRONUTRIENT POWDERS TO YOUNG CHILDREN IN 79 LOW AND MIDDLE INCOME COUNTRIES: A MICROSIMULATION STUDY</p> <p>Sant-Rayn Pasricha, MBBS MPH PhD, Michael Bode, Fayrouz Ashour, Amrita Arcot, Laura Murray-Kolb, Parminder Suchdev and Adrian Gheorghie MRC Human Immunology Unit, MRC Weatherall Institute of Molecular Medicine, University of Oxford Presented By: Sant-Rayn Pasricha</p> |
| 15:00 – 15:15 | #43 | <p>TRIFERIC (FERRIC PYROPHOSPHATE CITRATE), A NOVEL THERAPY THAT TREATS ANEMIA OF INFLAMMATION AND OVERCOMES FUNCTIONAL IRON DEFICIENCY</p> <p>Ajay Gupta, MD Rockwell Medical, USA Presented By: Ajay Gupta</p> |
| 15:15 – 15:30 | #44 | <p>IRON–FORTIFIED VS LOW–IRON INFANT FORMULA: COGNITIVE OUTCOMES AT 10 AND 16 YEARS</p> <p>Sheila Gahagan¹, Erin Delker¹, Marcella Castillo², Betsy Lozoff³ ¹University of California, San Diego; ²Instituto de Nutrición y Tecnología de los Alimentos, Universidad de Chile; ³University of Michigan Presented By: Sheila Gahagan</p> |

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| 14:00 – 15:25 | Concurrent Session X: Hereditary and Acquired Hemochromatosis and Its Treatment | |
| | <i>Location:</i> | <i>Legacy, Level Two</i> |
| | <i>Chairs:</i> | <p>Pierre Brissot, MD Faculté De Médecine-Université De Rennes1 France</p> <p>David Frazer, PhD QIMR Berghofer Medical Research Institute Australia</p> |
| 14:00 – 14:25 | | <p>NTBI Transporters</p> <p>Speaker: Mitchell Knutson, PhD University of Florida USA</p> |
| 14:25 – 14:40 | #45 | <p>A NOVEL H–FERRITIN SIGNALING RECEPTOR THAT ACTIVATES NLRP3 INFLAMMASOME–INDUCED INFLAMMATION IN HEPATIC STELLATE CELLS: IMPLICATIONS FOR HEPATIC FIBROGENESIS IN HAEMOCHROMATOSIS</p> <p>Manuel Fernandez-Rojo, PhD, Anita Burgess, PhD, Diem Hoang-Le, BSc, Amber Glanfield, PhD, Sujeevi Nawaratna, PhD, Geoffrey Gobert, PhD and Grant Ramm, PhD QIMR Berghofer Medical Research Institute, Brisbane, Australia Presented By: Grant Ramm</p> |
| 14:40 – 14:55 | #46 | <p>A RANDOMIZED PATIENT–BLINDED STUDY OF TRUE VERSUS SHAM REDUCTION OF BODY IRON IN HFE RELATED HEMOCHROMATOSIS WITH MODERATE IRON OVERLOAD REVEALS BENEFIT OF TREATMENT</p> <p>Martin Delatycki, Sim Ong, Lyle Gurrin, Lara Dolling, Jeanette Dixon, Amanda Nicoll, Michelle Wolthuizen, Erica Wood, Greg Anderson, Grant Ramm, Katie Allen, John Olynyk, Darrell Crawford, Louise Ramm, Kevin Croft, Paul Gow, Simon Durrant and Lawrie Powell Murdoch Children’s Research Institute, Victoria, Australia Presented By: Martin Delatycki</p> |
| 14:55 – 15:10 | #47 | <p>THIZOLIDINONE COMPOUNDS PREVENT IRON OVERLOAD IN HFE MURINE MODEL THROUGH PROMOTING HEPICIDIN EXPRESSION</p> <p>Jing Liu and Sijin Liu Research Center for Eco-Environmental Sciences, Chinese Academy of Sciences Presented By: Jing Liu</p> |

15:10 – 15:25

#48

IMPROVING THE EFFICIENCY OF IRON CHELATORS USING NANOTECHNOLOGY

Shanshan Guo¹, Gang Liu, PhD¹, Tianqing Liu, PhD², David Frazer, PhD², Guangjun Nie, PhD¹ and Greg Anderson, PhD²

¹CAS Key Laboratory for Biomedical Effects of Nanomaterials and Nanosafety, National Center for Nanoscience and Technology, Beijing, China; ²Iron Metabolism Laboratory, QIMR Berghofer Medical Research Institute, Brisbane, Australia

Presented By: Shanshan Guo

15:25 – 15:45

Coffee Break

15:45 – 17:20

Concurrent Session XI: Tissue– Specific Iron Regulation

Location: Optimist, Level Two

Chairs: Dorine W. Swinkels, MD, PhD
Radboud University Nijmegen Medical Center
Netherlands

Fudi Wang, PhD
Zhejiang University, Department of Nutrition, School of Public Health
China

15:45 – 16:10

Iron Homeostasis in the Heart

Speaker: Samira Lakhali-Littleton, PhD
University of Oxford
United Kingdom

16:10 – 16:35

Ironing Out Smoke–Induced Inflammation in the Lung

Speaker: Suzanne Cloonan, PhD
Weill Cornell Medical College
USA

16:35 – 16:50

#49

IRON–RELATED PROTEINS IN THE KIDNEY AND THEIR REGULATION BY RENAL IRON OVERLOAD

Laura Diez Ricote and Mitchell D. Knutson, PhD
University of Florida, Gainesville, USA
Presented By: Laura Diez Ricote

16:50 – 17:05

#50

FERROPORTIN PROTECTS RED BLOOD CELLS FROM OXIDATIVE STRESS AND MALARIA INFECTION BY EXPORTING FREE INTRACELLULAR IRON

De-Liang Zhang, PhD¹, Jian Wang, PhD², Binal Shah, PhD³, Manik Ghosh, PhD⁴, Hayden Ollivierre, BSc⁴, Xin-zhuan Su, PhD², Philip Thuma, PhD⁵, Victor Gordeuk, PhD³ and Tracey Rouault, PhD⁴

¹Section on Human Iron Metabolism, NICHD, NIH; ²National Institute of Allergy and Infectious Diseases; ³University of Illinois at Chicago; ⁴Eunice Kennedy Shriver National Institute of Child Health and Human Development; ⁵Malaria Research Trust, Choma, Zambia
Presented By: De-Liang Zhang

17:05 – 17:20

#51

AN UNEXPECTED ROLE OF HFE IN MACROPHAGES

Maja Vujic Spasic, PhD, Naveen Kumar Tangudu and Dilay Lai
Institute of Comparative Molecular Endocrinology, Ulm University, Germany
Presented By: Maja Vujic Spasic

15:45 – 17:10

Concurrent Session XII: Iron: The Good, The Bad, and The Ugly

Location: Legacy, Level Two

Chair: Sandro Altamura, PhD
University of Heidelberg
Germany

Thomas Bartnikas, MD, PhD
Brown University
USA

15:45 – 16:10

Speciation of Iron in Tissues and Plasma During Development and in Disease Conditions

Speaker: Paul Lindahl, PhD
Texas A&M University
USA

16:10 – 16:25

#52

RESTORED IRON TRANSPORT BY A SMALL MOLECULE PROMOTES GUT IRON ABSORPTION AND HEMOGLOBINIZATION IN MICE, RATS, AND ZEBRAFISH

Anthony Grillo, Anna SantaMaria, Alexander Cioffi and Martin Burke
University of Illinois, USA
Presented By: Anthony Grillo

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| 16:25 – 16:40 | #53 | <p>ASTROCYTE HEPcidIN IS A KEY FACTOR IN LPS–INDUCED NEURONAL APOPTOSIS LH You², Caizhen Yan, Bingjie Zheng, Yunzhe Ci, Shiyang Chang, Peng Yu, Guofen Gao and Yan–Zhong Chang¹ ¹Hebei Normal Unviersity; ²Hebei Normal University Presented By: Yan-Zhong Chang</p> |
| 16:40 – 16:55 | #54 | <p>EFFECTS OF FERRIC CITRATE ADMINISTRATION IN A MURINE MODEL OF CHRONIC KIDNEY DISEASE Connor Francis¹, Samantha Neuburg², Claire Gerber², Xueyan Wang², Corey Dussold², Lixin Qi², Aline Martin², Myles Wolf² and Valentin David² ¹Division of Nephrology and Hypertension, Department of Medicine, and Center for Translational Metabolism and Health, Institute for Public Health and Medicine, Northwestern University Feinberg School of Medicine; ²Division of Nephrology and Hypertension, Department of Medicine, and Center for Translational Metabolism and Health, Institute for Public Health and Medicine, Northwestern University Feinberg School of Medicine, Chicago, IL, USA Presented By: Connor Francis</p> |
| 16:55 – 17:10 | #55 | <p>CROSSTALK BETWEEN HYPOXIC AND AUTOPHAGIC PATHWAYS IN INTESTINAL IRON METABOLISM Nupur Das, MBBS, PhD¹, Amanda Sankar, MD², Andrew Schwartz, MS¹ and Yatrik Shah, PhD^{1,3,4} ¹Department of Molecular and Integrative Physiology, University of Michigan, Ann Arbor, MI; ²Department of Pediatrics and Communicable Diseases, Division of Pediatric Hematology– Oncology University of Michigan, Ann Arbor, MI; ³Internal Medicine, Division of Gastroenterology, University of Michigan, Ann Arbor, MI; ⁴Department of Surgery, University of Michigan, Ann Arbor, MI Presented By: Nupur Das</p> |

19:00 – 23:30

Gala Dinner/Award Ceremony

Location: Centennial Hall, Level One