Program

Poster

I Mitochondrial dynamics

P-1 Property of C. elegans HMG-5, a homologue of TFAM, and its implication into mtDNA maintenance
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P-2 Live Cell Imaging of Mitochondrial Autophagy with a Fluorescent Small Molecule
Hidefumi Iwashita, Ryo Sakamoto, Nobuyuki Ozeki, Munetaka Ishiyama
Research & Development, Dojindo Laboratories

P-3 STED imaging of submitochondrial structure and respiratory supercomplex
Masumi Iketani[1], Nanase Hata[2], Masaya Ishigaki[2], Maki Sugaya[3], Mayumi Takahashi[4], Masashi Tanaka[3], Seisuke Hattori[2], Ikuroh Ohsawa[4]
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P-4 Novel mechanisms of SIRT3 activation by caloric restriction
Kanae Takeda, Takumi Narita, Masaki Kobayashi, Yoshikazu Higami
Faculty of Pharmaceutical Sciences, Tokyo University of Science

P-5 Loss of the Mitochondrial Fatty Acid beta-Oxidation Protein MCAD Disrupts OXPHOS Complex Stability and Function
Matthew McKenzie[1], Sze Chern Lim[1], Makiko Tajika[2], Masaru Shimura[2], Kei Murayama[2], Akira Ohtake[3]
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P-6 Mieap, the mitochondria-eating protein, induces cell death by eating unhealthy mitochondria
Yasuyuki Nakamura, Masayuki Tsuneki, Hirofumi Arakawa
Division of Cancer Biology, National Cancer Center Research Institute

P-7 Far-infrared radiation protects viability in a SCA3 cell model by improving mitochondrial function
Chin-San Liu[1], Jui-Chih Chang[2], Yu-Shan Cheng[2], Ching-Liang Hsieh[3]
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P-8 The Role of Cereblon as a Lon-type Protease
Kosuke Kataoka, Toru Asahi, Naoya Sawamura
Graduate School of Advanced Science and Engineering, Waseda university

P-9 Characterization of a novel calpain activator in the mitochondrial intermembrane space.
Takashi Nagashima, Tetsurou Yamashita, Hiroshi Tomita, Eriko Sugano, Taku Ozaki
Department of Chemistry and Biological Sciences, Faculty of Science and Engineering, Iwate University

P-10 Death associated protein 3 regulates mitochondrial-encoded protein synthesis and mitochondrial dynamics
Xian Hongxu
Dr. Liou Yih-Cherng's lab, Department of Biological Sciences, Faculty of Science, National University of Singapore, Singapore

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II Oxidative stress

P-11 APOBEC3 hypermutates mitochondrial DNA in differentiating dysplastic keratinocytes

Kousho Wakae[1], Lusheng Que[1], Kouichi Kitamura[1], Takashi Izuka[2], Mitsuhiro Nakamura[2], Satoru Kondo[3], Tomokazu Yoshizaki[3], Tomoaki Nishiyama[4], Masamichi Muramatsu[2], Md Mohiuddin[2], Hiroshi Fujiwara[3]

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P-12 Srebp-1c activates mitochondrial biogenesis in white adipose tissue via caloric restriction.

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P-13 UHRF1-mediated DNMT1 down-expression increases mitochondrial ROS generation in cellular senescence

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P-14 H2O2 induced caveolin-1 degradation and impaired mitochondrial function in E11 podocytes

Ya-Hui Chen, Chin-San Liu, Shih-Li Su

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P-15 An oxidative stress-stimulated mechanism for human mitochondrial alleles

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III Various functions and their disturbances

P-16 Dissecting the role of mitochondria in NLRP3 inflammasome activation via chemical genetics

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P-17 LDHB suppression induces mitochondrial defect through PDK-mediated PDH inactivation in hepatoma cell.

Young-Kyoung Lee

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P-18 Lysosomal storage of subunit c of mitochondrial ATP synthase in brain-specific Atp13a2-deficient mice

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P-19 Prosaposin regulates mitochondrial coenzyme Q10 levels and respiratory rates in HepG2 cells

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P-20 The local accumulation of mtDNA deletions in the brain and behavioral abnormalities in heterozygous Polg mutant mice.

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P-21 Dual Targets of RIG-I and MAVS Aggregates by mitochondrial E3 ligase MARCH5

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P-22 Chronic Drp1 toxicity by MITOL deletion causes heart failure with accelerated aging

Takeshi Tokuyama, Shun Nagashima, Keisuke Takeda, Ayumu Sugiura, Shigeru Yanagi

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P-23 The importance of mitochondrial fission in preventing disease phenotypes induced by a pathogenic mtDNA mutation

Kaori Ishikawa[1], Shun Katada[2], Emi Ogasawara[1], Yo Homma[2], Takaya Ishihara[3], Takayuki Mito[1], Katsuyoshi Mihara[4], Jun-Ichi Hayashi[1], Naotada Ishihara[3], Kazuto Nakada[1]

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IV Mitochondrial dysfunction in various diseases

P-24 α- mangostin reduces obesity- induced fat infiltration of the liver by regulating mitochondrial function and apoptosis

Shin-Yu Tsai, Pei-Chin Chung, I-Jong Tsai, Pei-Yuan Wang, Rong-Hong Hsieh

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P-25 Cardiomyocyte-specific loss of mitochondrial p32/C1qbp causes cardiomyopathy and activates stress responses

Takeshi Uchiumi, Mikako Yagi, Dongchon Kang

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P-26 Mitochondrial alterations and enhanced Xc- system in human chemoresistant gastric cancer

Sheng-Fan Wang[1], Meng-Shian Chen[1], Yueh-Ching Chou[2], Yune-Fang Ueng[3], Pen-Hui Yin[4], Tien-Shun Yeh[5], Chih-hsuan Wung[1], Hsin-Chen Lee[1]

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P-27 Amino acid starvation induces programmed necrosis in human breast cancer cells

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P-28 Mieap deficiency promotes vascular invasion of gastric adenocarcinoma in Gan mice

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P-29 Mitochondrial dysfunction contributes to the progression of chronic kidney disease

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P-30 The ration of urinary ncf-DNA and mtcf-DNA can potentially predict short term renal outcome in patients with CKD

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P-31 Mitochondrial DNA copy number and MMP expression in the uterosacral ligaments of premenopausal women with POP

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P-32 Mitochondrial respiratory defects are triggered by enhanced lipogenesis in cellular senescence

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P-33 Nrf1 regulates hepatoma invasiveness in response to mitochondrial defect

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P-34 Potential link between mitochondrial respiratory defect and sorafenib resistance of hepatocellular carcinoma

Eun-beom Lee

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P-35 Peripheral MtDNA Copy Number Correlated with Unfavorable LV Performance in AMI Patients post Primary Angioplasty

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P-36 Role of MARCH5 in hepatocarcinogenesis.

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P-37 Tetrahydrobiopterin supplementation enhances mitochondria and cardiac function in diabetic rat model via activation of Akt and PGC1-α signaling pathway

Hyoung Kyu Kim, T.H. Ko, S.H. Jeong, I-S. Song, S.R. Lee, H.J. Heo, N. Kim, K.S. Ko, B.D. Rhee, J. Han

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P-38 Suppression of mitochondrial pyruvate dehydrogenase phosphatase 1 enhances cardiomyocytes differentiation from mouse embryonic stem cells

Hyoung Kyu Kim, Hye Jin Heo, Jae Boum Youm, Tae Hee Ko, Nari Kim, Kyung Soo Ko, Byoung Doo Rhee, and Jin Han

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P-39 Necrox-5 regulates mitochondria biogenesis and inflammation response in ischemic rat heart.

Hyoung Kyu Kim[1, 2, 3], Seung Ryul Lee[1, 2, 3], Jubert Marquez[1, 2, 3], Nari Kim[1, 2, 3], Kyung Soo Ko[1, 2, 3], Byoung Doo Rhee[1, 2, 3], Jin Han[1, 2, 3*]

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V Pathophysiology of mitochondrial disorders

P-40 Infantile liver failure syndrome type 1 (ILFS1) mimicking citrin deficiency: A clinical and molecular analysis

Wei-Xia Lin, Qi-Qi Zheng, Li Guo, Ying Cheng, Yuan-Zong Song

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P-41 Biochemical and molecular analysis of Leigh's syndrome patients in Japan

Erika Ogawa[1], Takuya Fushimi[2], Masaru Shimura[2],Makiko Tajika[2], Keiko Ichimoto[2], Tomoko Tsuruoka[2], Taro Yamazaki[3], Masato Mori[4], Masakazu Kohda[5], Yasushi Okazaki[5], Akira Ohtake[3], Kei Murayama[2]

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P-42 Molecular Diagnosis of Citrin Deficiency: SLC25A13 mutations and their geographic distribution in China

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P-43 Molecular diagnosis and clinical management of a citrin-deficient infant harboring three pathogenic SLC25A13 variations

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P-44 A novel mutation in TAZ causes mitochondrial respiratory chain disorder without cardiomyopathy

Nurun Nahar Borna[1], Yoshihito Kishita[1], Kaori Ishikawa[2], Kazuto Nakada[2], Jun-Ichi Hayashi[2], Yoshimi Tokuzawa[1], Masakazu Kohda[3], Hiromi Nyuzuki[1], Yzumi Yamashita-Sugahara[1], Takashi Nasu[4], Atsuhito Takeda[5], Kei Murayama[6], Akira Ohtake[7], Yasushi Okazaki[8]

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P-45 Clinical presentation of a apanease familial case with a C3303T mutation in the mitochondrial tRNALeu(UUR) gene.

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P-46 Generation of induced pluripotent stem cells from a MELAS patient with m.13513G>A mutation.

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P-47 Rapidly progressive infantile cardiomyopathy with mitochondrial respiratory chain complex V deficiency

Atsuko Imai[1], Yoshihito Kishita[2], Yuko Nakayama[3], Shuhei Fujita[3], Takeshi Futatani[3], Masakazu Kohda[4], Yukiko Yatsuka[2], Akihiro Nakaya[5], Yasushi Sakata[6], Kei Murayama[7], Akira Ohtake[8], Yasushi Okazaki[9]

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P-48 Genetic analysis of mitochondrial disorder in Japanese patients

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P-49 Diagnosis and molecular basis of mitochondrial respiratory chain disorders in Japan

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P-50 Mitochondrial DNA depletion syndrome caused by homozygous mutation in *MIC13*

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VI Diagnosis of mitochondrial disorders

P-51 Serum GDF15 levels in diseases similar to mitochondrial disorders

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P-52 Improvement of Diagnosing of Patients with Suspected Mitochondrial Diseases in Latvia

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P-53 The clinical features of mitochondrial hearing loss and genetic counseling

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P-54 FGF-21, Lactic Acid and GDF-15 as Plasma Biomarkers in the Diagnosis of MELAS Disease.

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P-55 Nuclear magnetic resonance spectroscopy role in the metabolic profiling of mitochondrial diseases

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Program

P-56 A patient with chronic progressive external ophthalmoplegia (CPEO) diagnosed using urinary sediment cells

Hiroshi Kawana[1], Ikuma Musha[2], Yuichi Abe[1], Kaori Sassa[1], Takeshi Koga[1], Eiji Morita[1], Taro Yamazaki[1], Kenichi Tokuyama[1], Hideo Yamanouchi[1], Akira Ohtake[1]

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VII Therapy of mitochondrial disorders

P-57 Changes in the structure and functions of mitochondria in human preimplantation embryos during their development.

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P-58 Prenatal diagnosis of mitochondrial respiratory chain disorders caused by nuclear gene mutations

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P-59 Functional Analysis of Human Cybrid Cells Harboring MELAS A3243G Mutation with Peptide-mediated Delivery of Mitochondria

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P-60 Higd1a, an allosteric modulator of Cytochrome c oxidase, has therapeutic prospect for mitochondrial diseases.

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P-61 Pyruvate therapy for four infantile mitochondrial diseases due to mitochondrial and nuclear DNA mutations.

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