

OptiPrep™ Mini-Review MS05

Purification of mitochondria from mammalian and non-mammalian tissues and cells – a bibliography

- ◆ This Mini-Review provides a complete list of publications reporting the use of OptiPrep™ for the isolation of mitochondria: the references are sorted into sections according cell or tissue type. Within each section references are listed alphabetically according to first author.
- ◆ Key words in the article titles are highlighted in blue
- ◆ **Mini-Review MS04** provides a practical review of the current OptiPrep™-based methodology

Section A papers: Analysis primarily of mitochondria, often with additional information on the banding of other organelles (e.g. lysosomes, peroxisomes and ER)

Section B papers: analysis of mitochondrial interactions and association with the endoplasmic reticulum

SECTION A

A1 Mammalian cultured cells

Adenocarcinoma cells

Paterson, J.K. and Gottesman, M.M. (2007) *P-Glycoprotein is not present in mitochondrial membranes* Exp. Cell Res., **313**, 3100-3105

Shen, S-M., Guo, M., Xiong, Z., Yu, Y., Zhao, X-Y., Zhang, F-F. and Chen, G-Q. (2015) *AIF inhibits tumor metastasis by protecting PTEN from oxidation* EMBO Rep., **16**, 1563–1580

Adipocytes

Den Hartigh, L.J., Han, C.Y., Wang, S., Omer, M. and Chait, A. (2013) *10E,12Z-conjugated linoleic acid impairs adipocyte triglyceride storage by enhancing fatty acid oxidation, lipolysis, and mitochondrial reactive oxygen species* J. Lipid Res., **54**, 2964–2978

Adrenoleukodystrophy fibroblasts

Wiesinger, C., Kunze, M., Regelsberger, G., Forss-Petter, S. and Berger, J. (2013) *Impaired very long-chain Acyl-CoA β -oxidation in human X-linked adrenoleukodystrophy fibroblasts is a direct consequence of ABCD1 transporter dysfunction* J. Biol. Chem., **288**, 19269-19279

C3HA mouse lymphoid cells

Maia, R.C., Culver, C.A. and Laster, S.M. (2006) *Evidence against calcium as a mediator of mitochondrial dysfunction during apoptosis induced by arachidonic acid and other free fatty acids* J. Immunol., **177**, 6398-6404

Caco-2 cells

Bielaszewska, M., Ruter, C., Kunsmann, L., Greune, L., Bauwens, A., Zhang, W., Kuczius, T., Kim, K.S., Mellmann, A., Schmidt, M.A. and Karch, H. (2013) *Enterohemorrhagic Escherichia coli hemolysin employs outer membrane vesicles to target mitochondria and cause endothelial and epithelial apoptosis* PloS Pathog., **9**: e1003797

Carcinoma cells (see also “Colon carcinoma/colorectal cells”)

Chattopadhyay, S., Mukherjee, A., Patra, U., Bhowmick, R., Basak, T., Sengupta, S., Chawla-Sarkar, M. (2017) *Tyrosine phosphorylation modulates mitochondrial chaperonin Hsp60 and delays rotavirus NSP4-mediated apoptotic signaling in host cells* Cell. Microbiol., **19**: e12670

Maeda, H., Nagata, S., Wolfgang, C.D., Bratthauer, C.D., Bera, T.K. and Pastan, I. (2004) *The T cell receptor γ chain alternate reading frame protein (TARP), a prostate-specific protein localized in mitochondria* J. Biol. Chem., **279**, 24561-24568

Sandin, M., Antberg, L., Levander, F. and James, P. (2015) *A Breast Cell Atlas: Organelle analysis of the MDA-MB-231 cell line by density-gradient fractionation using isotopic marking and label-free analysis* EuPA Open Proteomics, **8**, 68–77

Shen, S-M., Guo, M., Xiong, Z., Yu, Y., Zhao, X-Y., Zhang, F-F. and Chen, G-Q. (2015) *AIF inhibits tumor metastasis by protecting PTEN from oxidation* EMBO Rep., **16**, 1563–1580

Weissleder, R., Tung, C-H., Mahmood, U. and Bogdanov, A. (1999) *In vivo imaging of tumors with protease-activated near-infrared fluorescent probes* Nature Biotech., **17**, 375-378

Zhyvoloup, A., Nemazanyy, I., Panasyuk, G., Valovka, T., Fenton, T., Rebholz, H., Wang, M-L., Foxon, R., Lyzogubov, V. et al (2003) *Subcellular localization and regulation of coenzyme A synthetase* J. Biol. Chem., **278**, 50316-50321

Cardiac myocytes

Nguyen, T., Ogbi, M. and Johnson, J.A. (2008) *Delta protein kinase C Interacts with the d subunit of the F₁F₀ ATPase in neonatal cardiac myocytes exposed to hypoxia or phorbol ester: implications for F₁F₀ ATPase regulation* J. Biol. Chem., **283**, 29831-29840

Nguyen, T.T., Ogbi, M., Yu, Q., Fishman, J.B., Thomas, W., Harvey, B.J., Fulton, D. Johnson, J.A. (2010) *Modulation of the protein kinase C δ interaction with the “d” subunit of F₁F₀-ATP synthase in neonatal cardiac myocytes; development of cell-permeable, mitochondrially targeted inhibitor and facilitator peptides* J. Biol. Chem., **285**, 22164–22173

Nguyen, T.T., Ogbi, M., Yu, Q. and Johnson, J.A. (2010) *Attenuation of the hypoxia-induced protein kinase C δ interaction with the ‘d’ subunit of F₁F₀-ATP synthase in neonatal cardiac myocytes: implications for energy preservation and survival* Biochem. J., **429**, 335–345

Ogbi, M. and Johnson, J.A. (2006) *Protein kinase C ϵ interacts with cytochrome c oxidase subunit IV and enhances cytochrome c oxidase activity in neonatal cardiac myocyte preconditioning* Biochem. J., **393**, 191-199

Colon carcinoma/colorectal cells

Boohaker, R.J., Zhang, G., Carlson, A.L., Nemecek, K.N. and Khaled, A.R. (2011) *BAX supports the mitochondrial network, promoting bioenergetics in nonapoptotic cells* Am. J. Physiol. Cell Physiol. **300**, C1466–C1478

Dionne, S., Levy, E., Levesque D. and Seidman, E.G. (2010) *PPAR γ ligand 15-deoxy-delta 12,14-prostaglandin J2 sensitizes human colon carcinoma cells to TWEAK-induced apoptosis* Anticancer Res., **30**, 157-166

Margineantu, D.H., Emerson, C.B., Diaz, D. and Hockenberry, D.M. (2007) *Hsp90 inhibition decreases mitochondrial protein turnover* PLoS ONE, **10**:e1066

Shen, S-M., Guo, M., Xiong, Z., Yu, Y., Zhao, X-Y., Zhang, F-F. and Chen, G-Q. (2015) *AIF inhibits tumor metastasis by protecting PTEN from oxidation* EMBO Rep., **16**, 1563–1580

COS cells

Graf, S.A., Haigh, S.E., Corson, E.D. and Shirihai, O.S. (2004) *Targeting, import, and dimerization of a mammalian mitochondrial ATP binding cassette (ABC) transporter, ABCB10 (ABC-me)* J. Biol. Chem., **279**, 42954-42963

Li, C-C., Wu, T-S., Huang, C-F., Jang, L-T., Liu, Y-T., You, S-T., Liou, G-G., Lee, F-J.S. (2012) *GTP-binding-defective ARL4D alters mitochondrial morphology and membrane potential* PloS One, **7**: e43552

Seyrantepe, V., Landry, K., Trudel, S., Hassan, J.A., Morales, C.R. and Pshezhetsky, A.V. (2004) *Neu4, a novel human lysosomal lumen sialidase, confers normal phenotype to sialidosis and galactosialidosis cells* J. Biol. Chem., **279**, 37021-37029

Fibrosarcoma cells (human)

Zhao, H., Ruberu, K., Li, H. and Garner, B. (2013) *Analysis of subcellular [⁵⁷Co] cobalamin distribution in SH-SY5Y neurons and brain tissue* J. Neurosci. Methods, **217**, 67– 74

HEK cells

Bhowmick, R., Halder, U.C., Chattopadhyay, S., Chanda, S., Nandi, S., Bagchi, P., Nayak, M.K., Chakrabarti, O., Kobayashi, N. and Chawla-Sarkar, M. (2012) *Rotaviral enterotoxin nonstructural protein 4 targets mitochondria for activation of apoptosis during infection* J. Biol. Chem., **287**, 35004–35020

Choi, Y-S., Ryu, B-K., Min, H-K., Lee, S-W. and Pak, Y.K. (2005) *Analysis of proteome bound to D-loop region of mitochondrial DNA by DNA-linked affinity chromatography and reverse-phase liquid chromatography/tandem mass spectrometry* Ann. N.Y. Acad. Sci., **1042**, 88-100

Choi, Y.B., Sandford, G. and Nicholas, J. (2012) *Human herpesvirus 8 interferon regulatory factor-mediated BH3-only protein inhibition via Bid BH3-B mimicry* PLoS Pathog., **8**: e1002748

Chou, C-H., Lee, R-S., Yang-Yen, H-F. (2006) *An internal EELD domain facilitates mitochondrial targeting of Mcl-1 via a Tom70-dependent pathway* Mol. Biol. Cell, **17**, 3952-3963

Gerhold, J.M., Cansiz-Arda, S., Löhmus, M., Engberg, O., Reyes, A., van Rennes, H., Sanz, A., Holt, I.J., Cooper, H.M. and Spelbrink, J.N. (2015) *Human mitochondrial DNA-protein complexes attach to a cholesterol-rich membrane structure* Sci. Rep., **5**: 15292

Kobuchi, H., Moriya, K., Ogino, T., Fujita, H., Inoue, K., Shuin, T., Yasuda, T., Utsumi, K. and Utsumi, T. (2012) *Mitochondrial localization of ABC transporter ABCG2 and its function in 5-aminolevulinic acid-mediated protoporphyrin IX accumulation* PLoS One, **7**: e50082

Landry, M-C., Champagne, C., Boulanger, M-C., Jetté, A., Fuchs, M., Dziengelewski, D. and Lavoie, J.N. (2014) *A functional interplay between the small GTPase Rab11a and mitochondria-shaping proteins regulates mitochondrial positioning and polarization of the actin cytoskeleton downstream of Src family kinases* J. Biol. Chem., **289**, 2230–2249

Lu, M-Y. and Liao, F. (2011) *Interferon-stimulated gene ISG12b2 is localized to the inner mitochondrial membrane and mediates virus-induced cell death* Cell Death Differ., **18**, 925–936

Ng, K-E., Schwarzer, S., Duchon, M.R. and Tinker, A. (2010) *The intracellular localization and function of the ATP-sensitive K⁺ channel subunit Kir6.1* J. Membr. Biol., **234**, 137–147

Rumlová, M., Křížová, I., Keprová, A., Hadravová, R., Doležal, M., Strohalmová, K., Pichová, I., Hájek, M. and Ruml, T. (2014) *HIV-1 protease-induced apoptosis* Retrovirology, **11**: 37

Shneyer, B.L., Ušaj, M. and Henn, A. (2016) *Myo19 is an outer mitochondrial membrane motor and effector of starvation-induced filopodia* J. Cell Sci., **129**, 543-556

Witkowski, A., Thweatt, J. and Smith, S. (2011) *Mammalian ACSF3 protein is a malonyl-CoA synthetase that supplies the chain extender units for mitochondrial fatty acid synthesis* J. Biol. Chem., **286**, 33729–33736

HeLa cells

Barth, S., Edlich, F., Berchner-Pfannschmidt, U., Gneuss, S., Jahreis, G., Hasgall, P.A., Fandrey, J., Wenger, R.H. and Camenisch, G. (2009) *Hypoxia-inducible factor prolyl-4-hydroxylase PHD2 protein abundance depends on integral membrane anchoring of FKBP38* J. Biol. Chem., **284**, 23046–23058

Huang, C-R. and Yang-Yen, H-F. (2010) *The fast-mobility isoform of mouse Mcl-1 is a mitochondrial matrix-localized protein with attenuated anti-apoptotic activity* FEBS Lett., **584**, 3323–3330

Liu, P., Huang, J., Zheng, Q., Xie, L., Lu, X., Jin, J. and Wang, G. (2017) *Mammalian mitochondrial RNAs are degraded in the mitochondrial intermembrane space by RNASET2* Protein Cell, **8**, 735–749

Tanaka, K., Sugiura, Y., Ichishita, R., Mihara, K. and Oka, T. (2011) *KLP6: a newly identified kinesin that regulates the morphology and transport of mitochondria in neuronal cells* J. Cell Sci., **124**, 2457-2465

Hepatocytes, hepatoma cells and hepatocarcinoma cells

Beauchamp, E., Tekpli, X., Marteil, G., Lagadic-Gossmann, D., Legrand, P. and Rioux, V. (2009) *N-Myristoylation targets dihydroceramide D4-desaturase 1 to mitochondria: Partial involvement in the apoptotic effect of myristic acid* Biochimie **91**, 1411–1419

Bhattacharyya, S., Feferman, L. and Tobacman, J.K. (2016) *Restriction of aerobic metabolism by acquired or innate arylsulfatase B deficiency: a new approach to the Warburg effect* Sci. Rep., **6**: 32885

Cheng, M-L., Chi, L-M., Wu, P-R. and Ho, H-Y. (2016) *Dehydroepiandrosterone-induced changes in mitochondrial proteins contribute to phenotypic alterations in hepatoma cells* Biochem.Pharmacol., **117**, 20-34

Fantappi, O., Sassoli, C., Tani, A., Nosi, D., Marchetti, S., Formigli, L. and Mazzanti, R. (2015) *Mitochondria of a human multidrug-resistant hepatocellular carcinoma cell line constitutively express inducible nitric oxide synthase in the inner membrane* J. Cell. Mol. Med., **19**, 1410-1417

Matsumoto, A., Comatas, K.E., Liu, L. and Stamler, J.S. (2003) *Screening for nitric oxide-dependent protein-protein interactions* Science, **301**, 657-661

Sultan, A.S., Miyoshi, E., Ihara, Y., Nishikawa, A., Tsukada, Y. and Taniguchi, N. (1997) *Bisecting GlcNac structures act as negative sorting signals for cell surface glycoproteins in forskolin-treated rat hepatoma cells* J. Biol. Chem., **272**, 2866-2872

Tekpli, X., Rivedal, E., Gorria, M., Landvik, N.E., Rissel, M., Dimanche-Boitrel, M-T., Baffet, G., Holme, J.A. and Lagadic-Gossmann, D. (2010) *The B[a]P-increased intercellular communication via translocation of connexin-43 into gap junctions reduces apoptosis* Toxicol. Appl. Pharmacol., **242**, 231–240

Hippocampal cells

Guan, D-F., Ren, P-Y., Hu, W. and Zhang, Y-L. (2015) *The mGluR5 positive allosteric modulator CDPBB inhibits SO₂-induced protein radical formation and mitochondrial dysfunction through activation of Akt in mouse hippocampal HT22 cells* Cell. Mol. Neurobiol., **35**, 573–583

Human breast cancer cells

Kim, H.M., Kim, C-S., Lee, J-H., Jang, S.J., Hwang, J.J., Ro, S. and Choi, J. (2013) *CG0009, a novel glycogen synthase kinase 3 inhibitor, induces cell death through cyclin D1 depletion in breast cancer cells* PLoS One, **8**: e60383

Human fibroblasts

Beltran, P.M.J., Mathias, R.A. and Cristea, I.M. (2016) *A portrait of the human organelle proteome in space and time during cytomegalovirus infection* Cell Systems **3**, 361–373

Mathias, R.A., Greco, T.M., Oberstein, A., Budayeva, H.G., Chakrabarti, R., Rowland, E.A., Kang, Y., Shenk, T. and Cristea, I.M. (2014) *Sirtuin 4 is a lipamidase regulating pyruvate dehydrogenase complex activity* Cell, **159**, 1615–1625

Mathias, R.A., Greco, T.M. and Cristea, I.M. (2016) *Identification of sirtuin4 (SIRT4) protein interactions: uncovering candidate acyl-modified mitochondrial substrates and enzymatic regulators* In Histone Deacetylases: Methods and Protocols: Methods Mol. Biol., **1436** (ed. Sarkar, S.), Springer Science+Business Media, LLC, pp 213-239

Mathias, R.A., Greco, T.M. and Cristea, I.M. (2016) *Identification of sirtuin4 (SIRT4) protein interactions: uncovering candidate acyl-modified mitochondrial substrates and enzymatic regulators* In Histone Deacetylases: Methods and Protocols: Methods Mol. Biol., **1436** (ed. Sarkar, S.), Springer Science+Business Media, LLC, pp 213-239

Human glioblastoma cells

Paterson, J.K., Shukla, S., Black, C.M., Tachiwada, T., Garfield, S., Wincovitch, S., Ernst, D.N., Agadir, A., Li, X., Ambudkar, S.V., Szakacs, G., Akiyama, S-i. and Gottesman, M.M. (2007) *Human ABCB6 localizes to both the outer mitochondrial membrane and the plasma membrane* Biochemistry, **46**, 9443-9452

Leukocytic/lymphoid cells/lymphocytes

Choi, Y.B. and Harhaj, E.W. (2014) *HTLV-1 tax stabilizes MCL-1 via TRAF6-dependent K63-linked polyubiquitination to promote cell survival and transformation* PLoS Pathog., **10**: e1004458

Ebsen, H., Lettau, M., Kabelitz, D. and Janssen, O. (2015) *Subcellular localization and activation of ADAM proteases in the context of FasL shedding in T lymphocytes* Mol. Immunol., **65**, 416–428

Hall, S.L., Hester, S., Griffin, J.L., Lilley, K.S. and Jackson, A.P. (2009) *The organelle proteome of the DT40 lymphocyte cell line* Mol.Cell. Proteom., **8**, 1295–1305

Hwang, K.Y. and Choi, Y.B. (2016) *Modulation of mitochondrial antiviral signaling by human herpesvirus 8 interferon regulatory factor 1* J. Virol., **90**, 506-520

Kang, R., Tang, D., Yu, Y., Wang, Z., Hu, T., Wang, H. and Cao, L. (2010) *WAVE1 regulates Bcl-2 localization and phosphorylation in leukemia cells* Leukemia, **24**, 177–18

Liang, P., Nair, J.R., Song, L., McGuire, J.J. and Dolnick, B.J. (2005) *Comparative genomic analysis reveals a novel mitochondrial isoform of human rTS protein and unusual phylogenetic distribution of the rTS gene* BMC Genomics, **6**:125

Schmidt, H., Gelhaus, C., Nebendahl, M., Lettau, M., Wartzl, C., Kabelitz, D., Leippe, M. and Janssen, O. (2008) *2-D DIGE analyses of enriched secretory lysosomes reveal heterogeneous profiles of functionally relevant proteins in leukemic and activated human NK cells* Proteomics, **8**, 2911-2925

Schmidt, H., Gelhaus, C., Lucius, R., Nebendahl, M., Leippe, M. and Janssen, O. (2009) *Enrichment and analysis of secretory lysosomes from lymphocyte populations* BMC Immunol., **10**:41

Schmidt, H., Gelhaus, C., Nebendahl, M., Lettau, M., Lucius, R., Leippe, M., Kabelitz, D. and Janssen, O. (2011) *Effector granules in human T lymphocytes: proteomic evidence for two distinct species of cytotoxic effector vesicles* J. Proteome Res., **10**, 1603–1620

Macrophages

Andreyev, A.Y., Shen, Z., Guan, Z., Ryan, A., Fahy, E., Subramaniam, S., Raetz, C.R.H., Briggs, S. and Dennis, E.A. (2010) *Application of proteomic marker ensembles to subcellular organelle identification* Mol. Cell. Proteomics, **9**, 388–402

Andreyev, A.Y., Fahy, E., Guan, Z., Kelly, S., Li, X., McDonald, J.G., Milne, S., Myers, D., Park, H., Ryan, A., Thompson, B.M. et al (2010) *Subcellular organelle lipidomics in TLR-4-activated macrophages* J. Lipid Res., **51**, 2785–2797

DiMezzo, T.L., Ruthel, G., Brueggemann, E.E., Hines, H.B., Ribot, W.J., Chapman, C.E., Powell, B.S. and Welkos, S.L. (2009) *In vitro intracellular trafficking of virulence antigen during infection by Yersinia pestis* PLoS One, **4**:e6281

Mammary cells

Glunde, K., Guggino, S.E., Ichikawa, Y. and Bhujwala, Z.M. (2003) *A novel method of imaging lysosomes in living human mammary epithelial cells* Mol. Imaging, **2**, 24-36

Zhyvoloup, A., Nemazany, I., Panasyuk, G., Valovka, T., Fenton, T., Rebholz, H., Wang, M-L., Foxon, R., Lyzogubov, V. et al (2003) *Subcellular localization and regulation of coenzyme A synthetase* J. Biol. Chem., **278**, 50316-50321

MDCK cells

Solazzo, M., Fantappiè, O., D'Amico, M., Sassoli, C., Tani, A., Cipriani, G., Bogani, C., Formigli, L. and Mazzanti, R. (2009) *Mitochondrial expression and functional activity of breast cancer resistance protein in different multiple drug-resistant cell lines* Cancer Res., **69**, 7235-7242

Microvascular endothelial cells

Bielaszewska, M., Ruter, C., Kunsman, L., Greune, L., Bauwens, A., Zhang, W., Kuczius, T., Kim, K.S., Mellmann, A., Schmidt, M.A. and Karch, H. (2013) *Enterohemorrhagic Escherichia coli hemolysin employs outer membrane vesicles to target mitochondria and cause endothelial and epithelial apoptosis* PLoS Pathog., **9**: e1003797

Monkey kidney cells

Bhowmick, R., Halder, U.C., Chattopadhyay, S., Chanda, S., Nandi, S., Bagchi, P., Nayak, M.K., Chakrabarti, O., Kobayashi, N. and Chawla-Sarkar, M. (2012) *Rotaviral enterotoxin nonstructural protein 4 targets mitochondria for activation of apoptosis during infection* J. Biol. Chem., **287**, 35004–35020

Mouse/mouse embryo fibroblasts

Bär, S., Daeffler, L., Rommelaere, J. and Nüesch, J.P.F. (2008) *Vesicular egress of non-enveloped lytic parvoviruses depends on gelsolin functioning* PLoS Pathog., **4**:e1000126

Choi, Y.B., Shembade, N., Parvatiyar, K., Balachandran, S. and Harhaja, E.W. (2017) *TAX1BP1 restrains virus-induced apoptosis by facilitating itch-mediated degradation of the mitochondrial adaptor MAVS* Mol. Cell. Biol., **37**: e00422-16

Kim, Y., Kim, C., Kwon, O.Y., Nam, D., Kim, S.S., Park, J.H., Kim, S., Gallagher-Jones, M. et al (2017) *Visualization of a mammalian mitochondrion by coherent X-ray diffractive imaging* Sci. Rep., **7**: 1850

Pandey, S., Talukdar, I., Jain, B.P. and Goswami, S.K. (2017) *GSK3 β and ERK regulate the expression of 78 kDa SG2NA and ectopic modulation of its level affects phases of cell cycle* Sci. Rep., **7**: 7555

Wang, H-Q., Nakaya, Y., Du, Z., Yamane, T., Shirane, M., Kudo, T., Takeda, M., Takebayashi, K., Noda, Y., Nakayama, K.I. and Nishimura, M. (2005) *Interaction of presenilins with FKBP38 promotes apoptosis by reducing mitochondrial Bcl-2* Hum. Mol. Genet., **14**, 1889-1902

Myeloid leukaemic cells

Yun, Y., Wang, L-S., Shen, S-M., Xia, L., Zhang, L., Zhu, Y-S. and Chen, G-Q. (2007) *Subcellular proteome analysis of camptothecin analogue NSC606985-treated acute myeloid leukemic cells* J. Proteome Res., **6**, 3808-3818

Neuroblastoma/glioma cells

Greeve, I., Hermans-Borgmeyer, I., Brellinger, C., Kasper, D., Gomez-Isla, T., Behl, C., Levkau, B. and Nitsch, R.M. (2000) *The human DIMINUTO/DWARF1 homolog seladin-1 confers resistance to Alzheimer's disease-associated neurodegeneration and oxidative stress* J. Neurosci., **20**, 7345-7352

Sharer, J.D., Shern, J.S., Van Valkenburg, H., Wallace, D.C. and Kahn, R.A. (2002) *ARL2 and BART enter mitochondria and bind the adenine nucleotide transporter* Mol. Biol. Cell, **13**, 71-83

Tibaldi, E., Brunati, A.M., Massimino, M.L., Stringaro, A., Colone, M., Agostinelli, E., Arancia, G. and Toninello, A. (2008) *Src-Tyrosine kinases are major agents in mitochondrial tyrosine phosphorylation* J. Cell. Biochem., **104**, 840-849

Zhao, H., Ruberu, K., Li, H. and Garner, B. (2013) *Analysis of subcellular [⁵⁷Co] cobalamin distribution in SH-SY5Y neurons and brain tissue* J. Neurosci. Methods, **217**, 67– 74

Neuronal cells

Zhao, H., Ruberu, K., Li, H. and Garner, B. (2013) *Analysis of subcellular [⁵⁷Co] cobalamin distribution in SH-SY5Y neurons and brain tissue* J. Neurosci. Methods, **217**, 67– 74

NRK cells

Wang, C., Du, W., Su, Q.P., Zhu, M., Feng, P., Li, Y., Zhou, Y., Mi, N., Zhu, Y. et al (2015) *Dynamic tubulation of mitochondria drives mitochondrial network formation* Cell Res., **25**, 108-1120

Osteosarcoma cells

Jeon, J., Jeong J.H., Baek, J-H., Koo, H-J., Park, W-H., Yang, J-S., Yu, M-H., Kim, S. and Pak, Y.K. (2011) *Network clustering revealed the systemic alterations of mitochondrial protein expression* PLoS Comput Biol **7**: e1002093

Pancreatic β cells

Nyblom, H.K., Thorn, K., Ahmed, M. and Bergsten, P. (2006) *Mitochondrial protein patterns correlating with impaired insulin secretion from INS-1E cells exposed to elevated glucose concentrations* Proteomics, **6**, 5193-5198

Pheochromocytoma cells

Pridgeon J.W., Olzmann, J.A., Chin, L-S. and Li, L. (2007) *PINK1 protects against oxidative stress by phosphorylating mitochondrial chaperone TRAP1* PLoS Biol **5**, e172

Prostate cancer cells

Song, J-Y., Ryu, S-H., Cho, Y.M., Kim, Y.S., Lee, B-M., Lee, S-W. and Choi, J. (2013) *Wip1 suppresses apoptotic cell death through direct dephosphorylation of BAX in response to c-radiation* Cell Death Dis., **4**: e744

Trabecular meshwork cells

Sakai, H., Shen, X., Koga, T., Park, B-C., Noskina, Y., Tibudan, M. and Yue, B.Y.J.T. (2007) Mitochondrial association of myocilin, product of a glaucoma gene, in human trabecular meshwork cells J. Cell. Physiol., **213**, 775-784

A2 Mammalian Tissues

Brain (see also “Spinal cord”)

Bergemalm, D., Jonsson, P.A., Graffmo, K.S., Andersen, P.M., Brännström, T., Rehnmark, A. and Marklund, S.L. (2006) *Overloading of stable and exclusion of unstable human superoxide dismutase-1 variants in mitochondria of murine amyotrophic lateral sclerosis models* J. Neurosci., **26**, 4147-4154

El-Kadi, A.M., Bros-Facer, V., Deng, W., Philpott, A., Stoddart, E., Banks, G., Jackson, G.S., Fisher, E.M.C., Duchon, M.R et al (2010) *The Legs at odd angles (Loa) mutation in cytoplasmic dynein ameliorates mitochondrial function in SOD1^{G93A} mouse model for motor neuron disease* J. Biol. Chem., **285**, 18627-18639

Islinger, M., Kirsch, J., Angermüller, S., Rotaru, R., Abdolzade-Bavil, A. and Weber, G. (2011) *Subcellular fractionation of brain tissue using free-flow electrophoresis* In Neuroproteomics, Neuromethods, (ed. Li, K.W.) **57**, Springer Science+Business Media, pp. 27-45

Kwon, J., Han, E., Bui, C-B., Shin, W., Lee, J., Lee, S., Choi, Y-B., Lee, A-H., et al (2012) *Assurance of mitochondrial integrity and mammalian longevity by the p62-Keap1-Nrf2-Nqo1 cascade* EMBO Rep., **13**, 150-156

Lee, M. and Shin, J. (2011) *Triage of oxidation-prone proteins by Sqstm1/p62 within the mitochondria* Biochem. Biophys. Res. Comm., **413**, 122-127

Nawrotzki, R., Islinger, M., Vogel, I., Völkl, A. and Kirsch, J. (2012) *Expression and subcellular distribution of gephyrin in non-neuronal tissues and cells* Histochem. Cell. Biol., **137**, 471-482

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SECTION B

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