11. REFERENCES

References:

- ✓ Agarwal, A.K., and White, P.C. (2000). Structure of the VPATPD gene encoding subunit D of the human vacuolar proton ATPase. Biochemical and biophysical research communications *279*, 543-547.
- ✓ Akdemir, F., Farkas, R., Chen, P., Juhasz, G., Medved'ova, L., Sass, M., Wang, L., Wang, X., Chittaranjan, S., Gorski, S.M., Rodriguez, A., and Abrams, J.M. (2006). Autophagy occurs upstream or parallel to the apoptosome during histolytic cell death. Development *133*, 1457-1465.
- ✓ Akundi, R.S., Huang, Z., Eason, J., Pandya, J.D., Zhi, L., Cass, W.A., Sullivan, P.G., and Bueler, H. (2011). Increased mitochondrial calcium sensitivity and abnormal expression of innate immunity genes precede dopaminergic defects in Pink1-deficient mice. PloS one *6*, e16038.
- ✓ Alegre-Abarrategui, J., Christian, H., Lufino, M.M., Mutihac, R., Venda, L.L., Ansorge, O., and Wade-Martins, R. (2009). LRRK2 regulates autophagic activity and localizes to specific membrane microdomains in a novel human genomic reporter cellular model. Human molecular genetics *18*, 4022-4034.
- ✓ Alvarez-Erviti, L., Seow, Y., Schapira, A.H., Rodriguez-Oroz, M.C., Obeso, J.A., and Cooper, J.M. (2013). Influence of microRNA deregulation on chaperone-mediated autophagy and alpha-synuclein pathology in Parkinson's disease. Cell death & disease *4*, e545.
- ✓ Anderson, P.C., and Daggett, V. (2008). Molecular basis for the structural instability of human DJ-1 induced by the L166P mutation associated with Parkinson's disease. Biochemistry *47*, 9380-9393.
- ✓ Aoi, W., Naito, Y., Mizushima, K., Takanami, Y., Kawai, Y., Ichikawa, H., and Yoshikawa, T. (2010). The microRNA miR-696 regulates PGC-1{alpha} in mouse skeletal muscle in response to physical activity. American journal of physiology. Endocrinology and metabolism *298*, E799-806.
- ✓ Appel-Cresswell, S., Vilarino-Guell, C., Encarnacion, M., Sherman, H., Yu, I., Shah, B., Weir, D., Thompson, C., Szu-Tu, C., Trinh, J., Aasly, J.O., Rajput, A., Rajput, A.H., Jon Stoessl, A., and Farrer, M.J. (2013). Alpha-synuclein p.H50Q, a novel pathogenic mutation for Parkinson's disease. Movement disorders : official journal of the Movement Disorder Society *28*, 811-813.
- ✓ Aschrafi, A., Schwechter, A.D., Mameza, M.G., Natera-Naranjo, O., Gioio, A.E., and Kaplan, B.B. (2008). MicroRNA-338 regulates local cytochrome c oxidase IV mRNA levels and oxidative phosphorylation in the axons of sympathetic neurons. The Journal of neuroscience : the official journal of the Society for Neuroscience *28*, 12581-12590.

- ✓ Ashrafi, G., and Schwarz, T.L. (2013). The pathways of mitophagy for quality control and clearance of mitochondria. Cell death and differentiation *20*, 31-42.
- ✓ Baixauli, F., Acin-Perez, R., Villarroya-Beltri, C., Mazzeo, C., Nunez-Andrade, N., Gabande-Rodriguez, E., Ledesma, M.D., Blazquez, A., Martin, M.A., Falcon-Perez, J.M., Redondo, J.M., Enriquez, J.A., and Mittelbrunn, M. (2015). Mitochondrial Respiration Controls Lysosomal Function during Inflammatory T Cell Responses. Cell metabolism *22*, 485-498.
- ✓ Bandiera, S., Ruberg, S., Girard, M., Cagnard, N., Hanein, S., Chretien, D., Munnich, A., Lyonnet, S., and Henrion-Caude, A. (2011). Nuclear outsourcing of RNA interference components to human mitochondria. PLoS One *6*, e20746.
- ✓ Bandopadhyay, R., Kingsbury, A.E., Cookson, M.R., Reid, A.R., Evans, I.M., Hope, A.D., Pittman, A.M., Lashley, T., Canet-Aviles, R., Miller, D.W., McLendon, C., Strand, C., Leonard, A.J., Abou-Sleiman, P.M., Healy, D.G., Ariga, H., Wood, N.W., de Silva, R., Revesz, T., Hardy, J.A., and Lees, A.J. (2004). The expression of DJ-1 (PARK7) in normal human CNS and idiopathic Parkinson's disease. Brain : a journal of neurology *127*, 420-430.
- ✓ Bartolome, F., Wu, H.C., Burchell, V.S., Preza, E., Wray, S., Mahoney, C.J., Fox, N.C., Calvo, A., Canosa, A., Moglia, C., Mandrioli, J., Chio, A., Orrell, R.W., Houlden, H., Hardy, J., Abramov, A.Y., and Plun-Favreau, H. (2013). Pathogenic VCP mutations induce mitochondrial uncoupling and reduced ATP levels. Neuron *78*, 57-64.
- ✓ Beitz, J.M. (2014). Parkinson's disease: a review. Frontiers in bioscience *6*, 65-74.
- ✓ Bender, A., Krishnan, K.J., Morris, C.M., Taylor, G.A., Reeve, A.K., Perry, R.H., Jaros, E., Hersheson, J.S., Betts, J., Klopstock, T., Taylor, R.W., and Turnbull, D.M. (2006). High levels of mitochondrial DNA deletions in substantia nigra neurons in aging and Parkinson disease. Nature genetics *38*, 515-517.
- ✓ Bendor, J.T., Logan, T.P., and Edwards, R.H. (2013). The function of alpha-synuclein. Neuron *79*, 1044-1066.
- ✓ Berndt, N., Holzhutter, H.G., and Bulik, S. (2013). Implications of enzyme deficiencies on mitochondrial energy metabolism and reactive oxygen species formation of neurons involved in rotenone-induced Parkinson's disease: a model-based analysis. Febs J *280*, 5080-5093.
- ✓ Bienertova-Vasku, J., Sana, J., and Slaby, O. (2013). The role of microRNAs in mitochondria in cancer. Cancer letters *336*, 1-7.
- ✓ Block, M.L., Zecca, L., and Hong, J.S. (2007). Microglia-mediated neurotoxicity: uncovering the molecular mechanisms. Nature reviews. Neuroscience *8*, 57-69.

- ✓ Blum-Degen, D., Muller, T., Kuhn, W., Gerlach, M., Przuntek, H., and Riederer, P. (1995). Interleukin-1 beta and interleukin-6 are elevated in the cerebrospinal fluid of Alzheimer's and de novo Parkinson's disease patients. Neurosci Lett *202*, 17-20.

- ✓ Bonifati, V., Rizzu, P., van Baren, M.J., Schaap, O., Breedveld, G.J., Krieger, E., Dekker, M.C., Squitieri, F., Ibanez, P., Joosse, M., van Dongen, J.W., Vanacore, N., van Swieten, J.C., Brice, A., Meco, G., van Duijn, C.M., Oostra, B.A., and Heutink, P. (2003). Mutations in the DJ-1 gene associated with autosomal recessive early-onset parkinsonism. Science *299*, 256-259.

- ✓ Bove, J., Prou, D., Perier, C., and Przedborski, S. (2005). Toxin-induced models of Parkinson's disease. NeuroRx *2*, 484-494.

- ✓ Burn, D.J. (2007). Sex and Parkinson's disease: a world of difference? Journal of neurology, neurosurgery, and psychiatry *78*, 787.

- ✓ Burns, R.S., Chiueh, C.C., Markey, S.P., Ebert, M.H., Jacobowitz, D.M., and Kopin, I.J. (1983). A primate model of parkinsonism: selective destruction of dopaminergic neurons in the pars compacta of the substantia nigra by N-methyl-4-phenyl-1,2,3,6-tetrahydropyridine. Proceedings of the National Academy of Sciences of the United States of America *80*, 4546-4550.

- ✓ Cagnin, A., Kassiou, M., Meikle, S.R., and Banati, R.B. (2006). In vivo evidence for microglial activation in neurodegenerative dementia. Acta neurologica Scandinavica. Supplementum *185*, 107-114.

- ✓ Cai, Q., Davis, M.L., and Sheng, Z.H. (2011). Regulation of axonal mitochondrial transport and its impact on synaptic transmission. Neurosci Res *70*, 9-15.

- ✓ Calabrese, V.P. (2007). Projected number of people with Parkinson disease in the most populous nations, 2005 through 2030. Neurology *69*, 223-224; author reply 224.

- ✓ Cali, T., Ottolini, D., Negro, A., and Brini, M. (2013). Enhanced parkin levels favor ER-mitochondria crosstalk and guarantee Ca(2+) transfer to sustain cell bioenergetics. Biochim Biophys Acta *1832*, 495-508.

- ✓ Calvo, S.E., and Mootha, V.K. (2010). The mitochondrial proteome and human disease. Annu Rev Genomics Hum Genet *11*, 25-44.

- ✓ Caminero, A., Comabella, M., and Montalban, X. (2011). Tumor necrosis factor alpha (TNF-alpha), anti-TNF-alpha and demyelination revisited: an ongoing story. Journal of neuroimmunology *234*, 1-6.

- ✓ Canet-Aviles, R.M., Wilson, M.A., Miller, D.W., Ahmad, R., McLendon, C., Bandyopadhyay, S., Baptista, M.J., Ringe, D., Petsko, G.A., and Cookson, M.R. (2004). The Parkinson's disease protein DJ-1 is neuroprotective due to cysteine-sulfinic acid-driven mitochondrial localization. Proceedings of the National Academy of Sciences of the United States of America *101*, 9103-9108.

- ✓ Chaitanya, G.V., Steven, A.J., and Babu, P.P. (2010). PARP-1 cleavage fragments: signatures of cell-death proteases in neurodegeneration. Cell Commun Signal *8*, 31.
- ✓ Chan, N., Le, C., Shieh, P., Mozaffar, T., Khare, M., Bronstein, J., and Kimonis, V. (2012). Valosin-containing protein mutation and Parkinson's disease. Parkinsonism & related disorders *18*, 107-109.
- ✓ Chan, N.C., and Chan, D.C. (2011). Parkin uses the UPS to ship off dysfunctional mitochondria. Autophagy *7*, 771-772.
- ✓ Chang, Y., Yan, W., He, X., Zhang, L., Li, C., Huang, H., Nace, G., Geller, D.A., Lin, J., and Tsung, A. (2012). miR-375 inhibits autophagy and reduces viability of hepatocellular carcinoma cells under hypoxic conditions. Gastroenterology *143*, 177-187 e178.
- ✓ Chaudhuri, A.D., Choi, D.C., Kabaria, S., Tran, A., and Junn, E. (2016). MicroRNA-7 Regulates the Function of Mitochondrial Permeability Transition Pore by Targeting VDAC1 Expression. The Journal of biological chemistry *291*, 6483-6493.
- ✓ Chen, H., and Chan, D.C. (2009). Mitochondrial dynamics--fusion, fission, movement, and mitophagy--in neurodegenerative diseases. Hum Mol Genet *18*, R169-176.
- ✓ Chen, Y., Wang, S., Zhang, L., Xie, T., Song, S., Huang, J., Zhang, Y., Ouyang, L., and Liu, B. (2015). Identification of ULK1 as a novel biomarker involved in miR-4487 and miR-595 regulation in neuroblastoma SH-SY5Y cell autophagy. Scientific reports *5*, 11035.
- ✓ Cheong, H., Nair, U., Geng, J., and Klionsky, D.J. (2008). The Atg1 kinase complex is involved in the regulation of protein recruitment to initiate sequestering vesicle formation for nonspecific autophagy in Saccharomyces cerevisiae. Molecular biology of the cell *19*, 668-681.
- ✓ Chertoff, M., Di Paolo, N., Schoeneberg, A., Depino, A., Ferrari, C., Wurst, W., Pfizenmaier, K., Eisel, U., and Pitossi, F. (2011). Neuroprotective and neurodegenerative effects of the chronic expression of tumor necrosis factor alpha in the nigrostriatal dopaminergic circuit of adult mice. Exp Neurol *227*, 237-251.
- ✓ Chesselet, M.F., Richter, F., Zhu, C., Magen, I., Watson, M.B., and Subramaniam, S.R. (2012). A progressive mouse model of Parkinson's disease: the Thy1-aSyn ("Line 61") mice. Neurotherapeutics : the journal of the American Society for Experimental NeuroTherapeutics *9*, 297-314.
- ✓ Cho, H.J., Liu, G., Jin, S.M., Parisiadou, L., Xie, C., Yu, J., Sun, L., Ma, B., Ding, J., Vancraenenbroeck, R., Lobbestael, E., Baekelandt, V., Taymans, J.M., He, P., Troncoso, J.C., Shen, Y., and Cai, H. (2013). MicroRNA-205 regulates the expression of Parkinson's disease-related leucine-rich repeat kinase 2 protein. Human molecular genetics *22*, 608-620.
- ✓ Christo, S. (1980). [Nursing the adult patient with aphasia]. L' Infirmiere canadienne *22*, 20-24.

- ✓ Christofferson, D.E., Li, Y., and Yuan, J. (2014). Control of life-or-death decisions by RIP1 kinase. Annual review of physiology *76*, 129-150.
- ✓ Chu, C.T., Ji, J., Dagda, R.K., Jiang, J.F., Tyurina, Y.Y., Kapralov, A.A., Tyurin, V.A., Yanamala, N., Shrivastava, I.H., Mohammadyani, D., Qiang Wang, K.Z., Zhu, J., Klein-Seetharaman, J., Balasubramanian, K., Amoscato, A.A., Borisenko, G., Huang, Z., Gusdon, A.M., Cheikhi, A., Steer, E.K., Wang, R., Baty, C., Watkins, S., Bahar, I., Bayir, H., and Kagan, V.E. (2013). Cardiolipin externalization to the outer mitochondrial membrane acts as an elimination signal for mitophagy in neuronal cells. Nat Cell Biol *15*, 1197-1205.
- ✓ Chu, W.M. (2013). Tumor necrosis factor. Cancer Lett *328*, 222-225.
- ✓ Chung, K.K., Zhang, Y., Lim, K.L., Tanaka, Y., Huang, H., Gao, J., Ross, C.A., Dawson, V.L., and Dawson, T.M. (2001). Parkin ubiquitinates the alpha-synuclein-interacting protein, synphilin-1: implications for Lewy-body formation in Parkinson disease. Nature medicine *7*, 1144-1150.
- ✓ Clayton, D.A. (2000). Transcription and replication of mitochondrial DNA. Human reproduction *15 Suppl 2*, 11-17.
- ✓ Colla, E., Coune, P., Liu, Y., Pletnikova, O., Troncoso, J.C., Iwatsubo, T., Schneider, B.L., and Lee, M.K. (2012). Endoplasmic reticulum stress is important for the manifestations of alpha-synucleinopathy in vivo. J Neurosci *32*, 3306-3320.
- ✓ Comincini, S., Allavena, G., Palumbo, S., Morini, M., Durando, F., Angeletti, F., Pirtoli, L., and Miracco, C. (2013). microRNA-17 regulates the expression of ATG7 and modulates the autophagy process, improving the sensitivity to temozolomide and low-dose ionizing radiation treatments in human glioblastoma cells. Cancer biology & therapy *14*, 574-586.
- ✓ Cornelissen, T., Haddad, D., Wauters, F., Van Humbeeck, C., Mandemakers, W., Koentjoro, B., Sue, C., Gevaert, K., De Strooper, B., Verstreken, P., and Vandenberghe, W. (2014). The deubiquitinase USP15 antagonizes Parkin-mediated mitochondrial ubiquitination and mitophagy. Hum Mol Genet.
- ✓ Corti, O., Hampe, C., Koutnikova, H., Darios, F., Jacquier, S., Prigent, A., Robinson, J.C., Pradier, L., Ruberg, M., Mirande, M., Hirsch, E., Rooney, T., Fournier, A., and Brice, A. (2003). The p38 subunit of the aminoacyl-tRNA synthetase complex is a Parkin substrate: linking protein biosynthesis and neurodegeneration. Human molecular genetics *12*, 1427-1437.
- ✓ Crider, B.P., Xie, X.S., and Stone, D.K. (1994). Bafilomycin inhibits proton flow through the H+ channel of vacuolar proton pumps. The Journal of biological chemistry *269*, 17379-17381.
- ✓ Cuervo, A.M. (2008). Autophagy and aging: keeping that old broom working. Trends in genetics : TIG *24*, 604-612.

- ✓ Cuervo, A.M., Stefanis, L., Fredenburg, R., Lansbury, P.T., and Sulzer, D. (2004). Impaired degradation of mutant alpha-synuclein by chaperone-mediated autophagy. Science *305*, 1292-1295.
- ✓ Culpan, D., Kehoe, P.G., and Love, S. (2011). Tumour necrosis factor-alpha (TNF-alpha) and miRNA expression in frontal and temporal neocortex in Alzheimer's disease and the effect of TNF-alpha on miRNA expression in vitro. Int J Mol Epidemiol Genet *2*, 156-162.
- ✓ D'Amours, D., Sallmann, F.R., Dixit, V.M., and Poirier, G.G. (2001). Gain-of-function of poly(ADP-ribose) polymerase-1 upon cleavage by apoptotic proteases: implications for apoptosis. J Cell Sci *114*, 3771-3778.
- ✓ Dajas-Bailador, F., Bonev, B., Garcez, P., Stanley, P., Guillemot, F., and Papalopulu, N. (2012). microRNA-9 regulates axon extension and branching by targeting Map1b in mouse cortical neurons. Nature neuroscience.
- ✓ Dargemont, C., and Ossareh-Nazari, B. (2012). Cdc48/p97, a key actor in the interplay between autophagy and ubiquitin/proteasome catabolic pathways. Biochimica et biophysica acta *1823*, 138-144.
- ✓ Darios, F., Corti, O., Lucking, C.B., Hampe, C., Muriel, M.P., Abbas, N., Gu, W.J., Hirsch, E.C., Rooney, T., Ruberg, M., and Brice, A. (2003). Parkin prevents mitochondrial swelling and cytochrome c release in mitochondria-dependent cell death. Human molecular genetics *12*, 517-526.
- ✓ Das, S., Bedja, D., Campbell, N., Dunkerly, B., Chenna, V., Maitra, A., and Steenbergen, C. (2014). miR-181c Regulates the Mitochondrial Genome, Bioenergetics, and Propensity for Heart Failure In Vivo. PLoS One *9*, e96820.
- ✓ Das, S., Ferlito, M., Kent, O.A., Fox-Talbot, K., Wang, R., Liu, D., Raghavachari, N., Yang, Y., Wheelan, S.J., Murphy, E., and Steenbergen, C. (2012). Nuclear miRNA regulates the mitochondrial genome in the heart. Circulation research *110*, 1596-1603.
- ✓ de Lau, L.M., and Breteler, M.M. (2006). Epidemiology of Parkinson's disease. The Lancet. Neurology *5*, 525-535.
- ✓ Deas, E., Plun-Favreau, H., and Wood, N.W. (2009). PINK1 function in health and disease. EMBO molecular medicine *1*, 152-165.
- ✓ Deas, E., Wood, N.W., and Plun-Favreau, H. (2011). Mitophagy and Parkinson's disease: the PINK1-parkin link. Biochimica et biophysica acta *1813*, 623-633.
- ✓ Decressac, M., Mattsson, B., Weikop, P., Lundblad, M., Jakobsson, J., and Bjorklund, A. (2013). TFEB-mediated autophagy rescues midbrain dopamine neurons from alpha-synuclein toxicity. Proceedings of the National Academy of Sciences of the United States of America *110*, E1817-1826.

- ✓ Demers-Lamarche, J., Guillebaud, G., Tlili, M., Todkar, K., Belanger, N., Grondin, M., Nguyen, A.P., Michel, J., and Germain, M. (2016). Loss of Mitochondrial Function Impairs Lysosomes. The Journal of biological chemistry *291*, 10263-10276.
- ✓ Dobbs, R.J., Charlett, A., Purkiss, A.G., Dobbs, S.M., Weller, C., and Peterson, D.W. (1999). Association of circulating TNF-alpha and IL-6 with ageing and parkinsonism. Acta Neurol Scand *100*, 34-41.
- ✓ Duarte, F.V., Palmeira, C.M., and Rolo, A.P. (2014). The Role of microRNAs in Mitochondria: Small Players Acting Wide. Genes *5*, 865-886.
- ✓ Eisenberg, J.M., Horowitz, L.N., Busch, R., Arvan, D., and Rawnsley, H. (1979). Diagnosis of acute myocardial infarction in the emergency room: a prospective assessment of clinical decision making and the usefulness of immediate cardiac enzyme determination. Journal of community health *4*, 190-198.
- ✓ Elstner, M., Morris, C.M., Heim, K., Bender, A., Mehta, D., Jaros, E., Klopstock, T., Meitinger, T., Turnbull, D.M., and Prokisch, H. (2011). Expression analysis of dopaminergic neurons in Parkinson's disease and aging links transcriptional dysregulation of energy metabolism to cell death. Acta neuropathologica *122*, 75-86.
- ✓ Esteves, A.R., and Cardoso, S.M. (2016). LRRK2 at the Crossroad Between Autophagy and Microtubule Trafficking: Insights into Parkinson's Disease. The Neuroscientist : a review journal bringing neurobiology, neurology and psychiatry.
- ✓ Fahn, S., and Sulzer, D. (2004). Neurodegeneration and neuroprotection in Parkinson disease. NeuroRx : the journal of the American Society for Experimental NeuroTherapeutics *1*, 139-154.
- ✓ Fang, L., Hemion, C., Pinho Ferreira Bento, A.C., Bippes, C.C., Flammer, J., and Neutzner, A. (2015). Mitochondrial function in neuronal cells depends on p97/VCP/Cdc48-mediated quality control. Frontiers in cellular neuroscience *9*, 16.
- ✓ Fifel, K., Dkhissi-Benyahya, O., and Cooper, H.M. (2013). Lack of long-term changes in circadian, locomotor, and cognitive functions in acute and chronic MPTP (1-methyl-4-phenyl-1,2,3,6-tetrahydropyridine) mouse models of Parkinson's disease. Chronobiol Int *30*, 741-755.
- ✓ Findley, L.J., Gresty, M.A., and Halmagyi, G.M. (1981). Tremor, the cogwheel phenomenon and clonus in Parkinson's disease. Journal of neurology, neurosurgery, and psychiatry *44*, 534-546.
- ✓ Follert, P., Cremer, H., and Beclin, C. (2014). MicroRNAs in brain development and function: a matter of flexibility and stability. Front Mol Neurosci *7*, 5.
- ✓ Fouillet, A., Levet, C., Virgone, A., Robin, M., Dourlen, P., Rieusset, J., Belaidi, E., Ovize, M., Touret, M., Nataf, S., and Mollereau, B. (2012). ER stress inhibits neuronal death by promoting autophagy. Autophagy *8*, 915-926.

- ✓ Fragkouli, A., and Doxakis, E. (2014). miR-7 and miR-153 protect neurons against MPP(+)-induced cell death via upregulation of mTOR pathway. Frontiers in cellular neuroscience *8*, 182.

- ✓ Frank-Cannon, T.C., Tran, T., Ruhn, K.A., Martinez, T.N., Hong, J., Marvin, M., Hartley, M., Trevino, I., O'Brien, D.E., Casey, B., Goldberg, M.S., and Tansey, M.G. (2008). Parkin deficiency increases vulnerability to inflammation-related nigral degeneration. The Journal of neuroscience : the official journal of the Society for Neuroscience *28*, 10825-10834.

- ✓ Frank, M., Duvezin-Caubet, S., Koob, S., Occhipinti, A., Jagasia, R., Petcherski, A., Ruonala, M.O., Priault, M., Salin, B., and Reichert, A.S. (2012). Mitophagy is triggered by mild oxidative stress in a mitochondrial fission dependent manner. Biochim Biophys Acta *1823*, 2297-2310.

- ✓ Gandhi, S., Wood-Kaczmar, A., Yao, Z., Plun-Favreau, H., Deas, E., Klupsch, K., Downward, J., Latchman, D.S., Tabrizi, S.J., Wood, N.W., Duchen, M.R., and Abramov, A.Y. (2009). PINK1-associated Parkinson's disease is caused by neuronal vulnerability to calcium-induced cell death. Molecular cell *33*, 627-638.

- ✓ Gautier, C.A., Corti, O., and Brice, A. (2014). Mitochondrial dysfunctions in Parkinson's disease. Rev Neurol (Paris) *170*, 339-343.

- ✓ Gautier, C.A., Kitada, T., and Shen, J. (2008). Loss of PINK1 causes mitochondrial functional defects and increased sensitivity to oxidative stress. Proceedings of the National Academy of Sciences of the United States of America *105*, 11364-11369.

- ✓ Gegg, M.E., Cooper, J.M., Chau, K.Y., Rojo, M., Schapira, A.H., and Taanman, J.W. (2010). Mitofusin 1 and mitofusin 2 are ubiquitinated in a PINK1/parkin-dependent manner upon induction of mitophagy. Human molecular genetics *19*, 4861-4870.

- ✓ Gegg, M.E., Cooper, J.M., Schapira, A.H., and Taanman, J.W. (2009). Silencing of PINK1 expression affects mitochondrial DNA and oxidative phosphorylation in dopaminergic cells. PloS one *4*, e4756.

- ✓ Gehrke, S., Wu, Z., Klinkenberg, M., Sun, Y., Auburger, G., Guo, S., and Lu, B. (2015). PINK1 and Parkin control localized translation of respiratory chain component mRNAs on mitochondria outer membrane. Cell metabolism *21*, 95-108.

- ✓ Geisler, S., Holmstrom, K.M., Skujat, D., Fiesel, F.C., Rothfuss, O.C., Kahle, P.J., and Springer, W. (2010). PINK1/Parkin-mediated mitophagy is dependent on VDAC1 and p62/SQSTM1. Nature cell biology *12*, 119-131.

- ✓ Gillardon, F., Schmid, R., and Draheim, H. (2012). Parkinson's disease-linked leucine-rich repeat kinase 2(R1441G) mutation increases proinflammatory cytokine release from activated primary microglial cells and resultant neurotoxicity. Neuroscience *208*, 41-48.

- ✓ Ginns, E.I., Mak, S.K., Ko, N., Karlgren, J., Akbarian, S., Chou, V.P., Guo, Y., Lim, A., Samuelsson, S., LaMarca, M.L., Vazquez-DeRose, J., and Manning-Bog, A.B. (2014). Neuroinflammation and alpha-synuclein accumulation in response to glucocerebrosidase deficiency are accompanied by synaptic dysfunction. Mol Genet Metab *111*, 152-162.

- ✓ Gispert, S., Ricciardi, F., Kurz, A., Azizov, M., Hoepken, H.H., Becker, D., Voos, W., Leuner, K., Muller, W.E., Kudin, A.P., Kunz, W.S., Zimmermann, A., Roeper, J., Wenzel, D., Jendrach, M., Garcia-Arencibia, M., Fernandez-Ruiz, J., Huber, L., Rohrer, H., Barrera, M., Reichert, A.S., Rub, U., Chen, A., Nussbaum, R.L., and Auburger, G. (2009). Parkinson phenotype in aged PINK1-deficient mice is accompanied by progressive mitochondrial dysfunction in absence of neurodegeneration. PloS one *4*, e5777.

- ✓ Goetz, C.G. (2011). The history of Parkinson's disease: early clinical descriptions and neurological therapies. Cold Spring Harbor perspectives in medicine *1*, a008862.

- ✓ Gomes, L.C., and Scorrano, L. (2013). Mitochondrial morphology in mitophagy and macroautophagy. Biochimica et biophysica acta *1833*, 205-212.

- ✓ Gong, X., Wang, H., Ye, Y., Shu, Y., Deng, Y., He, X., Lu, G., and Zhang, S. (2016). miR-124 regulates cell apoptosis and autophagy in dopaminergic neurons and protects them by regulating AMPK/mTOR pathway in Parkinson's disease. American journal of translational research *8*, 2127-2137.

- ✓ Hattori, N., Saiki, S., and Imai, Y. (2014). Regulation by mitophagy. Int J Biochem Cell Biol *53*, 147-150.

- ✓ Hayashi, S., Wakabayashi, K., Ishikawa, A., Nagai, H., Saito, M., Maruyama, M., Takahashi, T., Ozawa, T., Tsuji, S., and Takahashi, H. (2000). An autopsy case of autosomal-recessive juvenile parkinsonism with a homozygous exon 4 deletion in the parkin gene. Mov Disord *15*, 884-888.

- ✓ Hayashi, T., Ishimori, C., Takahashi-Niki, K., Taira, T., Kim, Y.C., Maita, H., Maita, C., Ariga, H., and Iguchi-Ariga, S.M. (2009). DJ-1 binds to mitochondrial complex I and maintains its activity. Biochemical and biophysical research communications *390*, 667-672.

- ✓ He, C., and Klionsky, D.J. (2009). Regulation mechanisms and signaling pathways of autophagy. Annual review of genetics *43*, 67-93.

- ✓ Hirsch, E.C., Jenner, P., and Przedborski, S. (2013). Pathogenesis of Parkinson's disease. Movement disorders : official journal of the Movement Disorder Society *28*, 24-30.

- ✓ Hogue, D.L., Nash, C., Ling, V., and Hobman, T.C. (2002). Lysosome-associated protein transmembrane 4 alpha (LAPTM4 alpha) requires two tandemly arranged tyrosine-based signals for sorting to lysosomes. The Biochemical journal *365*, 721-730.

- ✓ Holdorff, B. (2002). Friedrich Heinrich Lewy (1885-1950) and his work. Journal of the history of the neurosciences *11*, 19-28.

- ✓ Hornykiewicz, O. (2010). A brief history of levodopa. Journal of neurology *257*, S249-252.
- ✓ Hoss, A.G., Labadorf, A., Beach, T.G., Latourelle, J.C., and Myers, R.H. (2016). microRNA Profiles in Parkinson's Disease Prefrontal Cortex. Frontiers in aging neuroscience *8*, 36.
- ✓ Hu, X., Li, P., Guo, Y., Wang, H., Leak, R.K., Chen, S., Gao, Y., and Chen, J. (2012). Microglia/macrophage polarization dynamics reveal novel mechanism of injury expansion after focal cerebral ischemia. Stroke *43*, 3063-3070.
- ✓ Hu, Z., Yu, D., Gu, Q.H., Yang, Y., Tu, K., Zhu, J., and Li, Z. (2014). miR-191 and miR-135 are required for long-lasting spine remodelling associated with synaptic long-term depression. Nature communications *5*, 3263.
- ✓ Huang, Y., Guerrero-Preston, R., and Ratovitski, E.A. (2012). Phospho-DeltaNp63alpha-dependent regulation of autophagic signaling through transcription and micro-RNA modulation. Cell cycle *11*, 1247-1259.
- ✓ Huynh, D.P., Scoles, D.R., Nguyen, D., and Pulst, S.M. (2003). The autosomal recessive juvenile Parkinson disease gene product, parkin, interacts with and ubiquitinates synaptotagmin XI. Human molecular genetics *12*, 2587-2597.
- ✓ Irrcher, I., Aleyasin, H., Seifert, E.L., Hewitt, S.J., Chhabra, S., Phillips, M., Lutz, A.K., Rousseaux, M.W., Bevilacqua, L., Jahani-Asl, A., Callaghan, S., MacLaurin, J.G., Winklhofer, K.F., Rizzu, P., Rippstein, P., Kim, R.H., Chen, C.X., Fon, E.A., Slack, R.S., Harper, M.E., McBride, H.M., Mak, T.W., and Park, D.S. (2010). Loss of the Parkinson's disease-linked gene DJ-1 perturbs mitochondrial dynamics. Human molecular genetics *19*, 3734-3746.
- ✓ Jankovic, J. (2008). Parkinson's disease: clinical features and diagnosis. Journal of neurology, neurosurgery, and psychiatry *79*, 368-376.
- ✓ Jegga, A.G., Schneider, L., Ouyang, X., and Zhang, J. (2011). Systems biology of the autophagy-lysosomal pathway. Autophagy *7*, 477-489.
- ✓ Ju, J.S., Fuentealba, R.A., Miller, S.E., Jackson, E., Piwnica-Worms, D., Baloh, R.H., and Weihl, C.C. (2009). Valosin-containing protein (VCP) is required for autophagy and is disrupted in VCP disease. The Journal of cell biology *187*, 875-888.
- ✓ Juhasz, K., Buzas, K., and Duda, E. (2013). Importance of reverse signaling of the TNF superfamily in immune regulation. Expert Rev Clin Immunol *9*, 335-348.
- ✓ Junn, E., Taniguchi, H., Jeong, B.S., Zhao, X., Ichijo, H., and Mouradian, M.M. (2005). Interaction of DJ-1 with Daxx inhibits apoptosis signal-regulating kinase 1 activity and cell death. Proceedings of the National Academy of Sciences of the United States of America *102*, 9691-9696.

- ✓ Kabeya, Y., Mizushima, N., Ueno, T., Yamamoto, A., Kirisako, T., Noda, T., Kominami, E., Ohsumi, Y., and Yoshimori, T. (2000). LC3, a mammalian homologue of yeast Apg8p, is localized in autophagosome membranes after processing. The EMBO journal *19*, 5720-5728.
- ✓ Kanagaraj, N., Beiping, H., Dheen, S.T., and Tay, S.S. (2014). Downregulation of miR-124 in MPTP-treated mouse model of Parkinson's disease and MPP iodide-treated MN9D cells modulates the expression of the calpain/cdk5 pathway proteins. Neuroscience *272*, 167-179.
- ✓ Kang, T., Lu, W., Xu, W., Anderson, L., Bacanamwo, M., Thompson, W., Chen, Y.E., and Liu, D. (2013). MicroRNA-27 (miR-27) targets prohibitin and impairs adipocyte differentiation and mitochondrial function in human adipose-derived stem cells. J Biol Chem *288*, 34394-34402.
- ✓ Kaplan, B.B., Kar, A.N., Gioio, A.E., and Aschrafi, A. (2013). MicroRNAs in the axon and presynaptic nerve terminal. Frontiers in cellular neuroscience *7*, 126.
- ✓ Kim, B., Yang, M.S., Choi, D., Kim, J.H., Kim, H.S., Seol, W., Choi, S., Jou, I., Kim, E.Y., and Joe, E.H. (2012). Impaired inflammatory responses in murine Lrrk2-knockdown brain microglia. PloS one *7*, e34693.
- ✓ Kim, J., Byun, J.W., Choi, I., Kim, B., Jeong, H.K., Jou, I., and Joe, E. (2013a). PINK1 Deficiency Enhances Inflammatory Cytokine Release from Acutely Prepared Brain Slices. Experimental neurobiology *22*, 38-44.
- ✓ Kim, J., Inoue, K., Ishii, J., Vanti, W.B., Voronov, S.V., Murchison, E., Hannon, G., and Abeliovich, A. (2007). A MicroRNA feedback circuit in midbrain dopamine neurons. Science *317*, 1220-1224.
- ✓ Kim, N.C., Tresse, E., Kolaitis, R.M., Molliex, A., Thomas, R.E., Alami, N.H., Wang, B., Joshi, A., Smith, R.B., Ritson, G.P., Winborn, B.J., Moore, J., Lee, J.Y., Yao, T.P., Pallanck, L., Kundu, M., and Taylor, J.P. (2013b). VCP is essential for mitochondrial quality control by PINK1/Parkin and this function is impaired by VCP mutations. Neuron *78*, 65-80.
- ✓ Kitada, T., Asakawa, S., Hattori, N., Matsumine, H., Yamamura, Y., Minoshima, S., Yokochi, M., Mizuno, Y., and Shimizu, N. (1998). Mutations in the parkin gene cause autosomal recessive juvenile parkinsonism. Nature *392*, 605-608.
- ✓ Klein, C., and Westenberger, A. (2012). Genetics of Parkinson's disease. Cold Spring Harbor perspectives in medicine *2*, a008888.
- ✓ Korkmaz, G., le Sage, C., Tekirdag, K.A., Agami, R., and Gozuacik, D. (2012). miR-376b controls starvation and mTOR inhibition-related autophagy by targeting ATG4C and BECN1. Autophagy *8*, 165-176.
- ✓ Kovaleva, V., Mora, R., Park, Y.J., Plass, C., Chiramel, A.I., Bartenschlager, R., Dohner, H., Stilgenbauer, S., Pscherer, A., Lichter, P., and Seiffert, M. (2012). miRNA-130a targets

ATG2B and DICER1 to inhibit autophagy and trigger killing of chronic lymphocytic leukemia cells. Cancer research *72*, 1763-1772.

- ✓ Kulkarni, A.C., Kuppusamy, P., and Parinandi, N. (2007). Oxygen, the lead actor in the pathophysiologic drama: enactment of the trinity of normoxia, hypoxia, and hyperoxia in disease and therapy. Antioxid Redox Signal *9*, 1717-1730.
- ✓ Kuroda, Y., Mitsui, T., Kunishige, M., Shono, M., Akaike, M., Azuma, H., and Matsumoto, T. (2006). Parkin enhances mitochondrial biogenesis in proliferating cells. Human molecular genetics *15*, 883-895.
- ✓ Lang, A.E., and Lozano, A.M. (1998). Parkinson's disease. Second of two parts. The New England journal of medicine *339*, 1130-1143.
- ✓ Lee, H.J., and Chung, K.C. (2012). PINK1 positively regulates IL-1beta-mediated signaling through Tollip and IRAK1 modulation. Journal of neuroinflammation *9*, 271.
- ✓ Lee, J.Y., Nagano, Y., Taylor, J.P., Lim, K.L., and Yao, T.P. (2010). Disease-causing mutations in parkin impair mitochondrial ubiquitination, aggregation, and HDAC6-dependent mitophagy. The Journal of cell biology *189*, 671-679.
- ✓ Lee, Y., Stevens, D.A., Kang, S.U., Jiang, H., Lee, Y.I., Ko, H.S., Scarffe, L.A., Umanah, G.E., Kang, H., Ham, S., Kam, T.I., Allen, K., Brahmachari, S., Kim, J.W., Neifert, S., Yun, S.P., Fiesel, F.C., Springer, W., Dawson, V.L., Shin, J.H., and Dawson, T.M. (2017). PINK1 Primes Parkin-Mediated Ubiquitination of PARIS in Dopaminergic Neuronal Survival. Cell reports *18*, 918-932.
- ✓ Lesage, S., Anheim, M., Letournel, F., Bousset, L., Honore, A., Rozas, N., Pieri, L., Madiona, K., Durr, A., Melki, R., Verny, C., Brice, A., and French Parkinson's Disease Genetics Study, G. (2013). G51D alpha-synuclein mutation causes a novel parkinsonian-pyramidal syndrome. Annals of neurology *73*, 459-471.
- ✓ Li, H., Mao, S., Wang, H., Zen, K., Zhang, C., and Li, L. (2014a). MicroRNA-29a modulates axon branching by targeting doublecortin in primary neurons. Protein & cell *5*, 160-169.
- ✓ Li, J., Donath, S., Li, Y., Qin, D., Prabhakar, B.S., and Li, P. (2010). miR-30 regulates mitochondrial fission through targeting p53 and the dynamin-related protein-1 pathway. PLoS genetics *6*, e1000795.
- ✓ Li, J., Li, Y., Jiao, J., Wang, J., Li, Y., Qin, D., and Li, P. (2014b). Mitofusin 1 is negatively regulated by microRNA 140 in cardiomyocyte apoptosis. Molecular and cellular biology *34*, 1788-1799.
- ✓ Li, J.H., Liu, S., Zhou, H., Qu, L.H., and Yang, J.H. (2014c). starBase v2.0: decoding miRNA-ceRNA, miRNA-ncRNA and protein-RNA interaction networks from large-scale CLIP-Seq data. Nucleic Acids Res *42*, D92-97.

- ✓ Li, P., Jiao, J., Gao, G., and Prabhakar, B.S. (2012). Control of mitochondrial activity by miRNAs. Journal of cellular biochemistry *113*, 1104-1110.
- ✓ Lill, C.M. (2016). Genetics of Parkinson's disease. Molecular and cellular probes *30*, 386-396.
- ✓ Lin, M.K., and Farrer, M.J. (2014). Genetics and genomics of Parkinson's disease. Genome medicine *6*, 48.
- ✓ Livak, K.J., and Schmittgen, T.D. (2001). Analysis of relative gene expression data using real-time quantitative PCR and the 2(-Delta Delta C(T)) Method. Methods *25*, 402-408.
- ✓ Long, B., Wang, K., Li, N., Murtaza, I., Xiao, J.Y., Fan, Y.Y., Liu, C.Y., Li, W.H., Cheng, Z., and Li, P. (2013). miR-761 regulates the mitochondrial network by targeting mitochondrial fission factor. Free radical biology & medicine *65*, 371-379.
- ✓ Luoma, P., Melberg, A., Rinne, J.O., Kaukonen, J.A., Nupponen, N.N., Chalmers, R.M., Oldfors, A., Rautakorpi, I., Peltonen, L., Majamaa, K., Somer, H., and Suomalainen, A. (2004). Parkinsonism, premature menopause, and mitochondrial DNA polymerase gamma mutations: clinical and molecular genetic study. Lancet *364*, 875-882.
- ✓ Luthman, J., Fredriksson, A., Sundstrom, E., Jonsson, G., and Archer, T. (1989). Selective lesion of central dopamine or noradrenaline neuron systems in the neonatal rat: motor behavior and monoamine alterations at adult stage. Behav Brain Res *33*, 267-277.
- ✓ Macedo, M.G., Anar, B., Bronner, I.F., Cannella, M., Squitieri, F., Bonifati, V., Hoogeveen, A., Heutink, P., and Rizzu, P. (2003). The DJ-1L166P mutant protein associated with early onset Parkinson's disease is unstable and forms higher-order protein complexes. Human molecular genetics *12*, 2807-2816.
- ✓ Majounie, E., Traynor, B.J., Chio, A., Restagno, G., Mandrioli, J., Benatar, M., Taylor, J.P., and Singleton, A.B. (2012). Mutational analysis of the VCP gene in Parkinson's disease. Neurobiology of aging *33*, 209 e201-202.
- ✓ Malik, A.N., Shahni, R., Rodriguez-de-Ledesma, A., Laftah, A., and Cunningham, P. (2011). Mitochondrial DNA as a non-invasive biomarker: accurate quantification using real time quantitative PCR without co-amplification of pseudogenes and dilution bias. Biochemical and biophysical research communications *412*, 1-7.
- ✓ Mariappan, N., Elks, C.M., Fink, B., and Francis, J. (2009). TNF-induced mitochondrial damage: a link between mitochondrial complex I activity and left ventricular dysfunction. Free Radic Biol Med *46*, 462-470.
- ✓ Mariappan, N., Elks, C.M., Haque, M., and Francis, J. (2012). Interaction of TNF with angiotensin II contributes to mitochondrial oxidative stress and cardiac damage in rats. PLoS One *7*, e46568.

- ✓ Marques, T.M., Kuiperij, H.B., Bruinsma, I.B., van Rumund, A., Aerts, M.B., Esselink, R.A., Bloem, B.R., and Verbeek, M.M. (2016). MicroRNAs in Cerebrospinal Fluid as Potential Biomarkers for Parkinson's Disease and Multiple System Atrophy. Molecular neurobiology.

- ✓ Martin, D.N., and Baehrecke, E.H. (2004). Caspases function in autophagic programmed cell death in Drosophila. Development *131*, 275-284.

- ✓ Martinez-Vicente, M., Talloczy, Z., Kaushik, S., Massey, A.C., Mazzulli, J., Mosharov, E.V., Hodara, R., Fredenburg, R., Wu, D.C., Follenzi, A., Dauer, W., Przedborski, S., Ischiropoulos, H., Lansbury, P.T., Sulzer, D., and Cuervo, A.M. (2008). Dopamine-modified alpha-synuclein blocks chaperone-mediated autophagy. The Journal of clinical investigation *118*, 777-788.

- ✓ Massano, J., and Bhatia, K.P. (2012). Clinical approach to Parkinson's disease: features, diagnosis, and principles of management. Cold Spring Harbor perspectives in medicine *2*, a008870.

- ✓ Matsuda, N., Sato, S., Shiba, K., Okatsu, K., Saisho, K., Gautier, C.A., Sou, Y.S., Saiki, S., Kawajiri, S., Sato, F., Kimura, M., Komatsu, M., Hattori, N., and Tanaka, K. (2010). PINK1 stabilized by mitochondrial depolarization recruits Parkin to damaged mitochondria and activates latent Parkin for mitophagy. The Journal of cell biology *189*, 211-221.

- ✓ Mazzulli, J.R., Xu, Y.H., Sun, Y., Knight, A.L., McLean, P.J., Caldwell, G.A., Sidransky, E., Grabowski, G.A., and Krainc, D. (2011). Gaucher disease glucocerebrosidase and alpha-synuclein form a bidirectional pathogenic loop in synucleinopathies. Cell *146*, 37-52.

- ✓ McCoy, M.K., Martinez, T.N., Ruhn, K.A., Szymkowski, D.E., Smith, C.G., Botterman, B.R., Tansey, K.E., and Tansey, M.G. (2006). Blocking soluble tumor necrosis factor signaling with dominant-negative tumor necrosis factor inhibitor attenuates loss of dopaminergic neurons in models of Parkinson's disease. The Journal of neuroscience : the official journal of the Society for Neuroscience *26*, 9365-9375.

- ✓ McGeer, P.L., Itagaki, S., Boyes, B.E., and McGeer, E.G. (1988). Reactive microglia are positive for HLA-DR in the substantia nigra of Parkinson's and Alzheimer's disease brains. Neurology *38*, 1285-1291.

- ✓ McNaught, K.S., Belizaire, R., Isacson, O., Jenner, P., and Olanow, C.W. (2003). Altered proteasomal function in sporadic Parkinson's disease. Experimental neurology *179*, 38-46.

- ✓ McNaught, K.S., and Olanow, C.W. (2003). Proteolytic stress: a unifying concept for the etiopathogenesis of Parkinson's disease. Annals of neurology *53 Suppl 3*, S73-84; discussion S84-76.

- ✓ Menghini, R., Casagrande, V., Marino, A., Marchetti, V., Cardellini, M., Stoehr, R., Rizza, S., Martelli, E., Greco, S., Mauriello, A., Ippoliti, A., Martelli, F., Lauro, R., and Federici, M.

(2014). MiR-216a: a link between endothelial dysfunction and autophagy. Cell death & disease *5*, e1029.

- ✓ Mercado, G., Castillo, V., Soto, P., and Sidhu, A. (2016). ER stress and Parkinson's disease: Pathological inputs that converge into the secretory pathway. Brain research *1648*, 626-632.
- ✓ Mercer, T.R., Neph, S., Dinger, M.E., Crawford, J., Smith, M.A., Shearwood, A.M., Haugen, E., Bracken, C.P., Rackham, O., Stamatoyannopoulos, J.A., Filipovska, A., and Mattick, J.S. (2011). The human mitochondrial transcriptome. Cell *146*, 645-658.
- ✓ Mikhaylova, O., Stratton, Y., Hall, D., Kellner, E., Ehmer, B., Drew, A.F., Gallo, C.A., Plas, D.R., Biesiada, J., Meller, J., and Czyzyk-Krzeska, M.F. (2012). VHL-regulated MiR-204 suppresses tumor growth through inhibition of LC3B-mediated autophagy in renal clear cell carcinoma. Cancer cell *21*, 532-546.
- ✓ Miller, B.C., Zhao, Z., Stephenson, L.M., Cadwell, K., Pua, H.H., Lee, H.K., Mizushima, N.N., Iwasaki, A., He, Y.W., Swat, W., and Virgin, H.W.t. (2008). The autophagy gene ATG5 plays an essential role in B lymphocyte development. Autophagy *4*, 309-314.
- ✓ Minones-Moyano, E., Porta, S., Escaramis, G., Rabionet, R., Iraola, S., Kagerbauer, B., Espinosa-Parrilla, Y., Ferrer, I., Estivill, X., and Marti, E. (2011). MicroRNA profiling of Parkinson's disease brains identifies early downregulation of miR-34b/c which modulate mitochondrial function. Human molecular genetics *20*, 3067-3078.
- ✓ Mizushima, N., Yoshimori, T., and Levine, B. (2010). Methods in mammalian autophagy research. Cell *140*, 313-326.
- ✓ Mogi, M., Harada, M., Kondo, T., Riederer, P., Inagaki, H., Minami, M., and Nagatsu, T. (1994a). Interleukin-1 beta, interleukin-6, epidermal growth factor and transforming growth factor-alpha are elevated in the brain from parkinsonian patients. Neurosci Lett *180*, 147-150.
- ✓ Mogi, M., Harada, M., Riederer, P., Narabayashi, H., Fujita, K., and Nagatsu, T. (1994b). Tumor necrosis factor-alpha (TNF-alpha) increases both in the brain and in the cerebrospinal fluid from parkinsonian patients. Neurosci Lett *165*, 208-210.
- ✓ Mogi, M., Harada, M., Riederer, P., Narabayashi, H., Fujita, K., and Nagatsu, T. (1994c). Tumor necrosis factor-alpha (TNF-alpha) increases both in the brain and in the cerebrospinal fluid from parkinsonian patients. Neurosci Lett *165*, 208-210.
- ✓ Mogi, M., Togari, A., Kondo, T., Mizuno, Y., Komure, O., Kuno, S., Ichinose, H., and Nagatsu, T. (2000a). Caspase activities and tumor necrosis factor receptor R1 (p55) level are elevated in the substantia nigra from parkinsonian brain. J Neural Transm *107*, 335-341.
- ✓ Mogi, M., Togari, A., Kondo, T., Mizuno, Y., Komure, O., Kuno, S., Ichinose, H., and Nagatsu, T. (2000b). Caspase activities and tumor necrosis factor receptor R1 (p55) level

are elevated in the substantia nigra from parkinsonian brain. J Neural Transm *107*, 335-341.

- ✓ Morais, V.A., Haddad, D., Craessaerts, K., De Bock, P.J., Swerts, J., Vilain, S., Aerts, L., Overbergh, L., Grunewald, A., Seibler, P., Klein, C., Gevaert, K., Verstreken, P., and De Strooper, B. (2014). PINK1 loss-of-function mutations affect mitochondrial complex I activity via NdufA10 ubiquinone uncoupling. Science *344*, 203-207.
- ✓ Mori, H., Kondo, T., Yokochi, M., Matsumine, H., Nakagawa-Hattori, Y., Miyake, T., Suda, K., and Mizuno, Y. (1998). Pathologic and biochemical studies of juvenile parkinsonism linked to chromosome 6q. Neurology *51*, 890-892.
- ✓ Nagatsu, T., Mogi, M., Ichinose, H., and Togari, A. (2000). Changes in cytokines and neurotrophins in Parkinson's disease. J Neural Transm Suppl, 277-290.
- ✓ Nagatsu, T., and Sawada, M. (2007). Biochemistry of postmortem brains in Parkinson's disease: historical overview and future prospects. J Neural Transm Suppl, 113-120.
- ✓ Nalls, M.A., Pankratz, N., Lill, C.M., Do, C.B., Hernandez, D.G., Saad, M., DeStefano, A.L., Kara, E., Bras, J., Sharma, M., Schulte, C., Keller, M.F., Arepalli, S., Letson, C., Edsall, C., Stefansson, H., Liu, X., Pliner, H., Lee, J.H., Cheng, R., International Parkinson's Disease Genomics, C., Parkinson's Study Group Parkinson's Research: The Organized, G.I., andMe, GenePd, NeuroGenetics Research, C., Hussman Institute of Human, G., Ashkenazi Jewish Dataset, I., Cohorts for, H., Aging Research in Genetic, E., North American Brain Expression, C., United Kingdom Brain Expression, C., Greek Parkinson's Disease, C., Alzheimer Genetic Analysis, G., Ikram, M.A., Ioannidis, J.P., Hadjigeorgiou, G.M., Bis, J.C., Martinez, M., Perlmutter, J.S., Goate, A., Marder, K., Fiske, B., Sutherland, M., Xiromerisiou, G., Myers, R.H., Clark, L.N., Stefansson, K., Hardy, J.A., Heutink, P., Chen, H., Wood, N.W., Houlden, H., Payami, H., Brice, A., Scott, W.K., Gasser, T., Bertram, L., Eriksson, N., Foroud, T., and Singleton, A.B. (2014). Large-scale meta-analysis of genome-wide association data identifies six new risk loci for Parkinson's disease. Nature genetics *46*, 989-993.
- ✓ Narendra, D., Kane, L.A., Hauser, D.N., Fearnley, I.M., and Youle, R.J. (2010). p62/SQSTM1 is required for Parkin-induced mitochondrial clustering but not mitophagy; VDAC1 is dispensable for both. Autophagy *6*, 1090-1106.
- ✓ Narendra, D., Tanaka, A., Suen, D.F., and Youle, R.J. (2008). Parkin is recruited selectively to impaired mitochondria and promotes their autophagy. J Cell Biol *183*, 795-803.
- ✓ Nederlof, R., Eerbeek, O., Hollmann, M.W., Southworth, R., and Zuurbier, C.J. (2014). Targeting hexokinase II to mitochondria to modulate energy metabolism and reduce ischaemia-reperfusion injury in heart. British journal of pharmacology *171*, 2067-2079.
- ✓ Nguyen, H.T., Dalmasso, G., Muller, S., Carriere, J., Seibold, F., and Darfeuille-Michaud, A. (2014). Crohn's disease-associated adherent invasive Escherichia coli modulate levels

of microRNAs in intestinal epithelial cells to reduce autophagy. Gastroenterology *146*, 508-519.

- ✓ Nishida, Y., Arakawa, S., Fujitani, K., Yamaguchi, H., Mizuta, T., Kanaseki, T., Komatsu, M., Otsu, K., Tsujimoto, Y., and Shimizu, S. (2009). Discovery of Atg5/Atg7-independent alternative macroautophagy. Nature *461*, 654-658.
- ✓ Ohtsuki, S., Yamaguchi, H., Kang, Y.S., Hori, S., and Terasaki, T. (2010). Reduction of L-type amino acid transporter 1 mRNA expression in brain capillaries in a mouse model of Parkinson's disease. Biol Pharm Bull *33*, 1250-1252.
- ✓ Orom, U.A., and Lund, A.H. (2007). Isolation of microRNA targets using biotinylated synthetic microRNAs. Methods *43*, 162-165.
- ✓ Orth, M., and Schapira, A.H. (2002). Mitochondrial involvement in Parkinson's disease. Neurochem Int *40*, 533-541.
- ✓ Pankratz, N., Pauciulo, M.W., Elsaesser, V.E., Marek, D.K., Halter, C.A., Wojcieszek, J., Rudolph, A., Shults, C.W., Foroud, T., Nichols, W.C., and Parkinson Study Group, P.I. (2006). Mutations in DJ-1 are rare in familial Parkinson disease. Neuroscience letters *408*, 209-213.
- ✓ Pickrell, A.M., and Youle, R.J. (2015). The roles of PINK1, parkin, and mitochondrial fidelity in Parkinson's disease. Neuron *85*, 257-273.
- ✓ Pisanu, A., Lecca, D., Mulas, G., Wardas, J., Simbula, G., Spiga, S., and Carta, A.R. (2014). Dynamic changes in pro- and anti-inflammatory cytokines in microglia after PPAR-gamma agonist neuroprotective treatment in the MPTPp mouse model of progressive Parkinson's disease. Neurobiology of disease *71*, 280-291.
- ✓ Polymeropoulos, M.H., Lavedan, C., Leroy, E., Ide, S.E., Dehejia, A., Dutra, A., Pike, B., Root, H., Rubenstein, J., Boyer, R., Stenroos, E.S., Chandrasekharappa, S., Athanassiadou, A., Papapetropoulos, T., Johnson, W.G., Lazzarini, A.M., Duvoisin, R.C., Di Iorio, G., Golbe, L.I., and Nussbaum, R.L. (1997). Mutation in the alpha-synuclein gene identified in families with Parkinson's disease. Science *276*, 2045-2047.
- ✓ Prajapati, P., Sripada, L., Singh, K., Bhatelia, K., Singh, R., and Singh, R. (2015). TNF-alpha regulates miRNA targeting mitochondrial complex-I and induces cell death in dopaminergic cells. Biochimica et biophysica acta *1852*, 451-461.
- ✓ Proukakis, C., Dudzik, C.G., Brier, T., MacKay, D.S., Cooper, J.M., Millhauser, G.L., Houlden, H., and Schapira, A.H. (2013). A novel alpha-synuclein missense mutation in Parkinson disease. Neurology *80*, 1062-1064.
- ✓ Reale, M., Iarlori, C., Thomas, A., Gambi, D., Perfetti, B., Di Nicola, M., and Onofrj, M. (2009). Peripheral cytokines profile in Parkinson's disease. Brain Behav Immun *23*, 55-63.

- ✓ Recasens, A., Perier, C., and Sue, C.M. (2016). Role of microRNAs in the Regulation of alpha-Synuclein Expression: A Systematic Review. Frontiers in molecular neuroscience *9*, 128.
- ✓ Redmann, M., Dodson, M., Boyer-Guittaut, M., Darley-Usmar, V., and Zhang, J. (2014). Mitophagy mechanisms and role in human diseases. Int J Biochem Cell Biol *53*, 127-133.
- ✓ Saba, R., Storchel, P.H., Aksoy-Aksel, A., Kepura, F., Lippi, G., Plant, T.D., and Schratt, G.M. (2012). Dopamine-regulated microRNA MiR-181a controls GluA2 surface expression in hippocampal neurons. Mol Cell Biol *32*, 619-632.
- ✓ Saijo, K., Winner, B., Carson, C.T., Collier, J.G., Boyer, L., Rosenfeld, M.G., Gage, F.H., and Glass, C.K. (2009). A Nurr1/CoREST pathway in microglia and astrocytes protects dopaminergic neurons from inflammation-induced death. Cell *137*, 47-59.
- ✓ Sardiello, M., Palmieri, M., di Ronza, A., Medina, D.L., Valenza, M., Gennarino, V.A., Di Malta, C., Donaudy, F., Embrione, V., Polishchuk, R.S., Banfi, S., Parenti, G., Cattaneo, E., and Ballabio, A. (2009). A gene network regulating lysosomal biogenesis and function. Science *325*, 473-477.
- ✓ Savitt, J.M., Dawson, V.L., and Dawson, T.M. (2006). Diagnosis and treatment of Parkinson disease: molecules to medicine. J Clin Invest *116*, 1744-1754.
- ✓ Scalzo, P., Kummer, A., Cardoso, F., and Teixeira, A.L. (2009). Increased serum levels of soluble tumor necrosis factor-alpha receptor-1 in patients with Parkinson's disease. J Neuroimmunol *216*, 122-125.
- ✓ Schapira, A.H. (1993). Mitochondrial complex I deficiency in Parkinson's disease. Advances in neurology *60*, 288-291.
- ✓ Schug, Z.T., Gonzalvez, F., Houtkooper, R.H., Vaz, F.M., and Gottlieb, E. (2011). BID is cleaved by caspase-8 within a native complex on the mitochondrial membrane. Cell Death Differ *18*, 538-548.
- ✓ Serva, A., Knapp, B., Tsai, Y.T., Claas, C., Lisauskas, T., Matula, P., Harder, N., Kaderali, L., Rohr, K., Erfle, H., Eils, R., Braga, V., and Starkuviene, V. (2012). miR-17-5p regulates endocytic trafficking through targeting TBC1D2/Armus. PloS one *7*, e52555.
- ✓ Sevignani, C., Calin, G.A., Siracusa, L.D., and Croce, C.M. (2006). Mammalian microRNAs: a small world for fine-tuning gene expression. Mammalian genome : official journal of the International Mammalian Genome Society *17*, 189-202.
- ✓ Sheng, Z.H. (2014). Mitochondrial trafficking and anchoring in neurons: New insight and implications. J Cell Biol *204*, 1087-1098.
- ✓ Shi, G., Shi, J., Liu, K., Liu, N., Wang, Y., Fu, Z., Ding, J., Jia, L., and Yuan, W. (2013). Increased miR-195 aggravates neuropathic pain by inhibiting autophagy following peripheral nerve injury. Glia *61*, 504-512.

- ✓ Shimura, H., Schlossmacher, M.G., Hattori, N., Frosch, M.P., Trockenbacher, A., Schneider, R., Mizuno, Y., Kosik, K.S., and Selkoe, D.J. (2001). Ubiquitination of a new form of alpha-synuclein by parkin from human brain: implications for Parkinson's disease. Science *293*, 263-269.
- ✓ Shin, J.H., Ko, H.S., Kang, H., Lee, Y., Lee, Y.I., Pletinkova, O., Troconso, J.C., Dawson, V.L., and Dawson, T.M. (2011). PARIS (ZNF746) repression of PGC-1alpha contributes to neurodegeneration in Parkinson's disease. Cell *144*, 689-702.
- ✓ Shuh, M., Bohorquez, H., Loss, G.E., Jr., and Cohen, A.J. (2013). Tumor Necrosis Factor-alpha: Life and Death of Hepatocytes During Liver Ischemia/Reperfusion Injury. Ochsner J *13*, 119-130.
- ✓ Smalheiser, N.R., and Lugli, G. (2009). microRNA regulation of synaptic plasticity. Neuromolecular Med *11*, 133-140.
- ✓ Solis, O., Limon, D.I., Flores-Hernandez, J., and Flores, G. (2007). Alterations in dendritic morphology of the prefrontal cortical and striatum neurons in the unilateral 6-OHDA-rat model of Parkinson's disease. Synapse *61*, 450-458.
- ✓ Soreq, L., Bergman, H., Israel, Z., and Soreq, H. (2013). Deep brain stimulation modulates nonsense-mediated RNA decay in Parkinson's patients leukocytes. BMC Genomics *14*, 478.
- ✓ Spencer, B., Potkar, R., Trejo, M., Rockenstein, E., Patrick, C., Gindi, R., Adame, A., Wyss-Coray, T., and Masliah, E. (2009). Beclin 1 gene transfer activates autophagy and ameliorates the neurodegenerative pathology in alpha-synuclein models of Parkinson's and Lewy body diseases. The Journal of neuroscience : the official journal of the Society for Neuroscience *29*, 13578-13588.
- ✓ Spillantini, M.G., Schmidt, M.L., Lee, V.M., Trojanowski, J.Q., Jakes, R., and Goedert, M. (1997). Alpha-synuclein in Lewy bodies. Nature *388*, 839-840.
- ✓ Sripada, L., Tomar, D., Prajapati, P., Singh, R., Singh, A.K., and Singh, R. (2012). Systematic analysis of small RNAs associated with human mitochondria by deep sequencing: detailed analysis of mitochondrial associated miRNA. PloS one *7*, e44873.
- ✓ Sterky, F.H., and Larsson, N.G. (2008). Complex I: a complex gateway to the powerhouse. Cell Metab *7*, 278-279.
- ✓ Stevens, D.A., Lee, Y., Kang, H.C., Lee, B.D., Lee, Y.I., Bower, A., Jiang, H., Kang, S.U., Andrabi, S.A., Dawson, V.L., Shin, J.H., and Dawson, T.M. (2015). Parkin loss leads to PARIS-dependent declines in mitochondrial mass and respiration. Proceedings of the National Academy of Sciences of the United States of America *112*, 11696-11701.
- ✓ Stowe, D.F., and Camara, A.K. (2009). Mitochondrial reactive oxygen species production in excitable cells: modulators of mitochondrial and cell function. Antioxidants & redox signaling *11*, 1373-1414.

- ✓ Stypula, G., Kunert-Radek, J., Stepien, H., Zylinska, K., and Pawlikowski, M. (1996). Evaluation of interleukins, ACTH, cortisol and prolactin concentrations in the blood of patients with parkinson's disease. Neuroimmunomodulation *3*, 131-134.
- ✓ Su, X., Maguire-Zeiss, K.A., Giuliano, R., Prifti, L., Venkatesh, K., and Federoff, H.J. (2008). Synuclein activates microglia in a model of Parkinson's disease. Neurobiology of aging *29*, 1690-1701.
- ✓ Sun, T., Qiao, H., Pan, P.Y., Chen, Y., and Sheng, Z.H. (2013). Motile axonal mitochondria contribute to the variability of presynaptic strength. Cell Rep *4*, 413-419.
- ✓ Takahashi, H., Ohama, E., Suzuki, S., Horikawa, Y., Ishikawa, A., Morita, T., Tsuji, S., and Ikuta, F. (1994). Familial juvenile parkinsonism: clinical and pathologic study in a family. Neurology *44*, 437-441.
- ✓ Tanaka, A., Cleland, M.M., Xu, S., Narendra, D.P., Suen, D.F., Karbowski, M., and Youle, R.J. (2010). Proteasome and p97 mediate mitophagy and degradation of mitofusins induced by Parkin. The Journal of cell biology *191*, 1367-1380.
- ✓ Tenreiro, S., Eckermann, K., and Outeiro, T.F. (2014). Protein phosphorylation in neurodegeneration: friend or foe? Front Mol Neurosci *7*, 42.
- ✓ Thomas, K.J., McCoy, M.K., Blackinton, J., Beilina, A., van der Brug, M., Sandebring, A., Miller, D., Maric, D., Cedazo-Minguez, A., and Cookson, M.R. (2011). DJ-1 acts in parallel to the PINK1/parkin pathway to control mitochondrial function and autophagy. Human molecular genetics *20*, 40-50.
- ✓ Tong, Y., Yamaguchi, H., Giaime, E., Boyle, S., Kopan, R., Kelleher, R.J., 3rd, and Shen, J. (2010). Loss of leucine-rich repeat kinase 2 causes impairment of protein degradation pathways, accumulation of alpha-synuclein, and apoptotic cell death in aged mice. Proceedings of the National Academy of Sciences of the United States of America *107*, 9879-9884.
- ✓ Tran, N., and Hutvagner, G. (2013). Biogenesis and the regulation of the maturation of miRNAs. Essays Biochem *54*, 17-28.
- ✓ Tran, T.A., Nguyen, A.D., Chang, J., Goldberg, M.S., Lee, J.K., and Tansey, M.G. (2011). Lipopolysaccharide and tumor necrosis factor regulate Parkin expression via nuclear factor-kappa B. PloS one *6*, e23660.
- ✓ Tresse, E., Salomons, F.A., Vesa, J., Bott, L.C., Kimonis, V., Yao, T.P., Dantuma, N.P., and Taylor, J.P. (2010). VCP/p97 is essential for maturation of ubiquitin-containing autophagosomes and this function is impaired by mutations that cause IBMPFD. Autophagy *6*, 217-227.
- ✓ Trudler, D., Weinreb, O., Mandel, S.A., Youdim, M.B., and Frenkel, D. (2014). DJ-1 deficiency triggers microglia sensitivity to dopamine toward a pro-inflammatory phenotype that is attenuated by rasagiline. Journal of neurochemistry *129*, 434-447.

- ✓ Ulusoy, A., Decressac, M., Kirik, D., and Bjorklund, A. (2010). Viral vector-mediated overexpression of alpha-synuclein as a progressive model of Parkinson's disease. Progress in brain research *184*, 89-111.

- ✓ Valdes, P., Mercado, G., Vidal, R.L., Molina, C., Parsons, G., Court, F.A., Martinez, A., Galleguillos, D., Armentano, D., Schneider, B.L., and Hetz, C. (2014). Control of dopaminergic neuron survival by the unfolded protein response transcription factor XBP1. Proceedings of the National Academy of Sciences of the United States of America *111*, 6804-6809.

- ✓ Valente, E.M., Abou-Sleiman, P.M., Caputo, V., Muqit, M.M., Harvey, K., Gispert, S., Ali, Z., Del Turco, D., Bentivoglio, A.R., Healy, D.G., Albanese, A., Nussbaum, R., Gonzalez-Maldonado, R., Deller, T., Salvi, S., Cortelli, P., Gilks, W.P., Latchman, D.S., Harvey, R.J., Dallapiccola, B., Auburger, G., and Wood, N.W. (2004). Hereditary early-onset Parkinson's disease caused by mutations in PINK1. Science *304*, 1158-1160.

- ✓ Valente, E.M., Brancati, F., Caputo, V., Graham, E.A., Davis, M.B., Ferraris, A., Breteler, M.M., Gasser, T., Bonifati, V., Bentivoglio, A.R., De Michele, G., Durr, A., Cortelli, P., Filla, A., Meco, G., Oostra, B.A., Brice, A., Albanese, A., Dallapiccola, B., Wood, N.W., and European Consortium on Genetic Susceptibility in Parkinson's, D. (2002a). PARK6 is a common cause of familial parkinsonism. Neurological sciences : official journal of the Italian Neurological Society and of the Italian Society of Clinical Neurophysiology *23 Suppl 2*, S117-118.

- ✓ Valente, E.M., Brancati, F., Ferraris, A., Graham, E.A., Davis, M.B., Breteler, M.M., Gasser, T., Bonifati, V., Bentivoglio, A.R., De Michele, G., Durr, A., Cortelli, P., Wassilowsky, D., Harhangi, B.S., Rawal, N., Caputo, V., Filla, A., Meco, G., Oostra, B.A., Brice, A., Albanese, A., Dallapiccola, B., Wood, N.W., and European Consortium on Genetic Susceptibility in Parkinson's, D. (2002b). PARK6-linked parkinsonism occurs in several European families. Annals of neurology *51*, 14-18.

- ✓ Vargas, J.N., Kar, A.N., Kowalak, J.A., Gale, J.R., Aschrafi, A., Chen, C.Y., Gioio, A.E., and Kaplan, B.B. (2016). Axonal localization and mitochondrial association of precursor microRNA 338. Cellular and molecular life sciences : CMLS *73*, 4327-4340.

- ✓ Vogiatzi, T., Xilouri, M., Vekrellis, K., and Stefanis, L. (2008). Wild type alpha-synuclein is degraded by chaperone-mediated autophagy and macroautophagy in neuronal cells. J Biol Chem *283*, 23542-23556.

- ✓ Wallach, D. (2013). The TNF cytokine family: one track in a road paved by many. Cytokine *63*, 225-229.

- ✓ Wang, H., Ye, Y., Zhu, Z., Mo, L., Lin, C., Wang, Q., Wang, H., Gong, X., He, X., Lu, G., Lu, F., and Zhang, S. (2016). MiR-124 Regulates Apoptosis and Autophagy Process in MPTP Model of Parkinson's Disease by Targeting to Bim. Brain pathology *26*, 167-176.

- ✓ Wang, K., Long, B., Jiao, J.Q., Wang, J.X., Liu, J.P., Li, Q., and Li, P.F. (2012a). miR-484 regulates mitochondrial network through targeting Fis1. Nature communications *3*, 781.
- ✓ Wang, K.Z., Zhu, J., Dagda, R.K., Uechi, G., Cherra, S.J., 3rd, Gusdon, A.M., Balasubramani, M., and Chu, C.T. (2014). ERK-mediated phosphorylation of TFAM downregulates mitochondrial transcription: Implications for Parkinson's disease. Mitochondrion.
- ✓ Wang, P., Zhang, J., Zhang, L., Zhu, Z., Fan, J., Chen, L., Zhuang, L., Luo, J., Chen, H., Liu, L., Chen, Z., and Meng, Z. (2013). MicroRNA 23b regulates autophagy associated with radioresistance of pancreatic cancer cells. Gastroenterology *145*, 1133-1143 e1112.
- ✓ Wang, Q., Liu, Y., and Zhou, J. (2015). Neuroinflammation in Parkinson's disease and its potential as therapeutic target. Translational neurodegeneration *4*, 19.
- ✓ Wang, X., Yan, M.H., Fujioka, H., Liu, J., Wilson-Delfosse, A., Chen, S.G., Perry, G., Casadesus, G., and Zhu, X. (2012b). LRRK2 regulates mitochondrial dynamics and function through direct interaction with DLP1. Human molecular genetics *21*, 1931-1944.
- ✓ Warner, T.T., and Schapira, A.H. (2003). Genetic and environmental factors in the cause of Parkinson's disease. Annals of neurology *53 Suppl 3*, S16-23; discussion S23-15.
- ✓ Watson, M.B., Richter, F., Lee, S.K., Gabby, L., Wu, J., Masliah, E., Effros, R.B., and Chesselet, M.F. (2012). Regionally-specific microglial activation in young mice over-expressing human wildtype alpha-synuclein. Experimental neurology *237*, 318-334.
- ✓ Webb, J.L., Ravikumar, B., Atkins, J., Skepper, J.N., and Rubinsztein, D.C. (2003). Alpha-Synuclein is degraded by both autophagy and the proteasome. J Biol Chem *278*, 25009-25013.
- ✓ Westholm, J.O., and Lai, E.C. (2011). Mirtrons: microRNA biogenesis via splicing. Biochimie *93*, 1897-1904.
- ✓ Wilding, C.S., Beaumont, A.R., and Latchford, J.W. (1997). Mitochondrial DNA variation in the scallop Pecten maximus (L.) assessed by a PCR-RFLP method. Heredity *79 (Pt 2)*, 178-189.
- ✓ Wirdefeldt, K., Adami, H.O., Cole, P., Trichopoulos, D., and Mandel, J. (2011). Epidemiology and etiology of Parkinson's disease: a review of the evidence. European journal of epidemiology *26 Suppl 1*, S1-58.
- ✓ Wood-Kaczmar, A., Gandhi, S., Yao, Z., Abramov, A.Y., Miljan, E.A., Keen, G., Stanyer, L., Hargreaves, I., Klupsch, K., Deas, E., Downward, J., Mansfield, L., Jat, P., Taylor, J., Heales, S., Duchen, M.R., Latchman, D., Tabrizi, S.J., and Wood, N.W. (2008). PINK1 is necessary for long term survival and mitochondrial function in human dopaminergic neurons. PloS one *3*, e2455.

- ✓ Wu, C., Li, F., Niu, G., and Chen, X. (2013). PET imaging of inflammation biomarkers. Theranostics *3*, 448-466.
- ✓ Wu, F., Xu, H.D., Guan, J.J., Hou, Y.S., Gu, J.H., Zhen, X.C., and Qin, Z.H. (2015). Rotenone impairs autophagic flux and lysosomal functions in Parkinson's disease. Neuroscience *284*, 900-911.
- ✓ Wu, H., Wang, F., Hu, S., Yin, C., Li, X., Zhao, S., Wang, J., and Yan, X. (2012). MiR-20a and miR-106b negatively regulate autophagy induced by leucine deprivation via suppression of ULK1 expression in C2C12 myoblasts. Cellular signalling *24*, 2179-2186.
- ✓ Xiong, R., Wang, Z., Zhao, Z., Li, H., Chen, W., Zhang, B., Wang, L., Wu, L., Li, W., Ding, J., and Chen, S. (2014). MicroRNA-494 reduces DJ-1 expression and exacerbates neurodegeneration. Neurobiology of aging *35*, 705-714.
- ✓ Yamamoto, H., Morino, K., Nishio, Y., Ugi, S., Yoshizaki, T., Kashiwagi, A., and Maegawa, H. (2012). MicroRNA-494 regulates mitochondrial biogenesis in skeletal muscle through mitochondrial transcription factor A and Forkhead box j3. American journal of physiology. Endocrinology and metabolism *303*, E1419-1427.
- ✓ Yan, L.J., and Forster, M.J. (2009). Resolving mitochondrial protein complexes using nongradient blue native polyacrylamide gel electrophoresis. Anal Biochem *389*, 143-149.
- ✓ Yan, L.J., Yang, S.H., Shu, H., Prokai, L., and Forster, M.J. (2007). Histochemical staining and quantification of dihydrolipoamide dehydrogenase diaphorase activity using blue native PAGE. Electrophoresis *28*, 1036-1045.
- ✓ Yang, J., Chen, D., He, Y., Melendez, A., Feng, Z., Hong, Q., Bai, X., Li, Q., Cai, G., Wang, J., and Chen, X. (2013a). MiR-34 modulates Caenorhabditis elegans lifespan via repressing the autophagy gene atg9. Age *35*, 11-22.
- ✓ Yang, J.H., Li, J.H., Shao, P., Zhou, H., Chen, Y.Q., and Qu, L.H. (2011). starBase: a database for exploring microRNA-mRNA interaction maps from Argonaute CLIP-Seq and Degradome-Seq data. Nucleic Acids Res *39*, D202-209.
- ✓ Yang, X., Zhong, X., Tanyi, J.L., Shen, J., Xu, C., Gao, P., Zheng, T.M., DeMichele, A., and Zhang, L. (2013b). mir-30d Regulates multiple genes in the autophagy pathway and impairs autophagy process in human cancer cells. Biochemical and biophysical research communications *431*, 617-622.
- ✓ Yang, Y., Nishimura, I., Imai, Y., Takahashi, R., and Lu, B. (2003). Parkin suppresses dopaminergic neuron-selective neurotoxicity induced by Pael-R in Drosophila. Neuron *37*, 911-924.
- ✓ Yao, J., Zhou, E., Wang, Y., Xu, F., Zhang, D., and Zhong, D. (2014). microRNA-200a inhibits cell proliferation by targeting mitochondrial transcription factor A in breast cancer. DNA and cell biology *33*, 291-300.

- ✓ Yoshimori, T., Yamamoto, A., Moriyama, Y., Futai, M., and Tashiro, Y. (1991). Bafilomycin A1, a specific inhibitor of vacuolar-type H(+)-ATPase, inhibits acidification and protein degradation in lysosomes of cultured cells. The Journal of biological chemistry *266*, 17707-17712.

- ✓ Yu, Y., Cao, L., Yang, L., Kang, R., Lotze, M., and Tang, D. (2012). microRNA 30A promotes autophagy in response to cancer therapy. Autophagy *8*, 853-855.

- ✓ Zarranz, J.J., Alegre, J., Gomez-Esteban, J.C., Lezcano, E., Ros, R., Ampuero, I., Vidal, L., Hoenicka, J., Rodriguez, O., Atares, B., Llorens, V., Gomez Tortosa, E., del Ser, T., Munoz, D.G., and de Yebenes, J.G. (2004). The new mutation, E46K, of alpha-synuclein causes Parkinson and Lewy body dementia. Annals of neurology *55*, 164-173.

- ✓ Zhang, W., Wang, T., Pei, Z., Miller, D.S., Wu, X., Block, M.L., Wilson, B., Zhang, W., Zhou, Y., Hong, J.S., and Zhang, J. (2005). Aggregated alpha-synuclein activates microglia: a process leading to disease progression in Parkinson's disease. FASEB journal : official publication of the Federation of American Societies for Experimental Biology *19*, 533-542.

- ✓ Zhang, X., Zuo, X., Yang, B., Li, Z., Xue, Y., Zhou, Y., Huang, J., Zhao, X., Zhou, J., Yan, Y., Zhang, H., Guo, P., Sun, H., Guo, L., Zhang, Y., and Fu, X.D. (2014). MicroRNA Directly Enhances Mitochondrial Translation during Muscle Differentiation. Cell *158*, 607-619.

- ✓ Zhang, Y., Gao, J., Chung, K.K., Huang, H., Dawson, V.L., and Dawson, T.M. (2000). Parkin functions as an E2-dependent ubiquitin- protein ligase and promotes the degradation of the synaptic vesicle-associated protein, CDCrel-1. Proceedings of the National Academy of Sciences of the United States of America *97*, 13354-13359.

- ✓ Zheng, B., Liao, Z., Locascio, J.J., Lesniak, K.A., Roderick, S.S., Watt, M.L., Eklund, A.C., Zhang-James, Y., Kim, P.D., Hauser, M.A., Grunblatt, E., Moran, L.B., Mandel, S.A., Riederer, P., Miller, R.M., Federoff, H.J., Wullner, U., Papapetropoulos, S., Youdim, M.B., Cantuti-Castelvetri, I., Young, A.B., Vance, J.M., Davis, R.L., Hedreen, J.C., Adler, C.H., Beach, T.G., Graeber, M.B., Middleton, F.A., Rochet, J.C., Scherzer, C.R., and Global, P.D.G.E.C. (2010). PGC-1alpha, a potential therapeutic target for early intervention in Parkinson's disease. Science translational medicine *2*, 52ra73.

- ✓ Zhou, J., Tan, S.H., Nicolas, V., Bauvy, C., Yang, N.D., Zhang, J., Xue, Y., Codogno, P., and Shen, H.M. (2013). Activation of lysosomal function in the course of autophagy via mTORC1 suppression and autophagosome-lysosome fusion. Cell research *23*, 508-523.

- ✓ Zhu, H., Wu, H., Liu, X., Li, B., Chen, Y., Ren, X., Liu, C.G., and Yang, J.M. (2009). Regulation of autophagy by a beclin 1-targeted microRNA, miR-30a, in cancer cells. Autophagy *5*, 816-823.

- ✓ Zimprich, A., Muller-Myhsok, B., Farrer, M., Leitner, P., Sharma, M., Hulihan, M., Lockhart, P., Strongosky, A., Kachergus, J., Calne, D.B., Stoessl, J., Uitti, R.J., Pfeiffer, R.F., Trenkwalder, C., Homann, N., Ott, E., Wenzel, K., Asmus, F., Hardy, J., Wszolek, Z., and

Gasser, T. (2004). The PARK8 locus in autosomal dominant parkinsonism: confirmation of linkage and further delineation of the disease-containing interval. American journal of human genetics *74*, 11-19.