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### Profile

Dr. CHIU is Assistant Professor of Ophthalmology. She received her 7 years medical training at the Tianjin Medical University, People's Republic of China. She got her Master and Bachelor of Clinical Medicine degree in 1995 in Tianjin. She proceed with her postgraduate training in Ophthalmology and Visual sciences in the Chinese University of Hong Kong and then she proceed her training in neurosciences and received a Ph. D degree in 2008 at the University of Hong Kong. She had her post-doctoral training in the department of Anatomy and jointed the department of Ophthalmology as an Assistant Professor since 2014.

### Research Interests

Dr. Chiu long term research goal is to find a cure for visual loss in neurodegenerative retinal diseases, such as glaucoma and age-related macular degeneration. Her research work focus on investigating the mechanism of neuronal degeneration and finding new approaches to prevent neuronal death and promote neuronal survival and regeneration. Areas of her current research include:

- Electrical stimulation effect in traumatic optic neuropathy, glaucoma and retinitis pigmentosa
- Immune modulation on retinal ganglion cell survival in traumatic optic neuropathy and glaucoma
- Optogenetic therapy in retinal degenerative diseases
- Continuous monitor of retinal function using wireless apparatus

### Selected Publications

1. Ho W.L., Leung Y., Cheng S.S., Lok C.K., Ho Y.S., Baum L., Yang X., **Chiu K\***, and Chang R.C.C. (2015) Investigating degeneration of the retina in young and aged tau P301L mice. *Life Sci.* 2015 Jan 12. pii: S0024-3205(15)00002-8. doi: 10.1016/j.lfs.2014.12.019
2. Sen A., Wang Y.Y., **Chiu K.**, Whiley L., Cowan D., Chang R.C.C. and Legido-Quigley C. (2013) Metabolic phenotyping of the healthy rodent model using in-vial extraction of dried serum, urine and cerebrospinal fluid spots, *Analytical Chemistry*. 85, 7257-7263. doi: 10.1021/ac401149w
3. **Chiu K.**, So K.F. and Chang R.C.C. (2013) Progressive neurodegeneration of retina in Alzheimer's disease: Are  $\beta$ -amyloid peptide and tau new pathological factors in glaucoma? In: Shimon Rumelt Eds. *Glaucoma - Basic and Clinical Aspects*; InTech Open Access Publisher
4. **Chiu K.**, Chan T.F., Wu A., Leung I.Y.P., So K.F. and Chang R.C.C. (2012) Neurodegeneration of the retina in mouse models of Alzheimer's disease: What can we learn from the retina? *Age*, 34, 633-649. doi: 10.1007/s11357-011-9260-2
5. **Chiu K.**, Yeung S.C., So K.F. and Chang R.C.C. (2010) Modulation of morphological changes of microglia and neuroprotection by monocyte chemoattractant protein-1 in experimental glaucoma, *Cellular and Molecular Immunology*, 7, 61-68. doi: 10.1038/cmi.2009.110
6. **Chiu K.\***, Zhou Y.\*, Yeung S.C., Lok C.K.M., Chan O.O.C., Chang R.C.C., So K.F. and Chiu J. (2010) Up-regulation of crystallins is involved in the neuroprotective effect of wolfberry on survival of retinal ganglion cells in rat ocular hypertension model, *Journal of Cellular Biochemistry*, 110, 311-320. doi: 10.1002/jcb.22539