

New Zealand Standard Curriculum Vitae Template

PART 1

1a. Personal details		
Title	Dr	
First Name(s)	Benson	
Family Name	Chen	
Present position	Senior Research Fellow	Senior Medical Officer
Organisation/Employer	Department of Medicine, University of Auckland	Auckland City Hospital, Te Whatu Ora Te Toka Tumai
Contact Address	Department of Neurology, Auckland City Hospital 2 Park Road, Grafton, Auckland 1023	
Mobile	+64 21 140 7469	
Email	benenson.chen@auckland.ac.nz	
Personal website	https://profiles.auckland.ac.nz/benson-chen	
Research identifier	https://www.researchgate.net/profile/Benson-Chen	

1b. Academic qualifications
2024, Doctor of Philosophy, Clinical Neurosciences, University of Cambridge
2019, Fellow, Adult Medicine (Neurology), Royal Australasian College of Physicians
2018, Master of Science, Clinical Neurology, University College London
2017, Clinical Diploma, Palliative Medicine, Royal Australasian College of Physicians
2012, Bachelor of Medicine and Bachelor of Surgery, University of Auckland

1c. Professional positions held
<u>Academic Appointments:</u>
2024 – present, Senior Research Fellow, University of Auckland
2024 – present, Visiting Researcher, University of Cambridge
2023 – 2024, Clinical Research Associate, University of Cambridge
2021 – 2024, Supervisor, Neurobiology and Human Behaviour course, Gonville & Caius College, University of Cambridge
2020 – 2023, Clinical Research Fellow, University of Cambridge
2019 – 2020, Visiting Research Scholar, Emory University School of Medicine, Atlanta, Georgia, USA
2017 – 2018, Honorary Clinical Lecturer, University of Auckland

<u>Clinical Appointments:</u>
2024 – present, Consultant Neurologist and Neuro-Ophthalmologist, Auckland City Hospital
2021 – 2024, Locum Neuro-Ophthalmology Fellow, Addenbrooke's Hospital, Cambridge University Hospitals NHS Foundation Trust, United Kingdom
2020, Locum Neurologist, Auckland City Hospital
2019 – 2020, International Neuro-Ophthalmology Fellow, Emory Eye Center, Atlanta, Georgia, USA
2016 – 2018, Neurology Registrar, Auckland City Hospital

1d. Present research/professional speciality
I work in the intersection between neurology and ophthalmology. My research focuses on mitochondrial and neurological diseases and the use of traditional outcome measures and novel biomarkers to assess the impact of these diseases and their treatments as part of routine healthcare and in clinical trials. I am interested in the development and application of patient-reported outcome measures for neurological diseases, in particular the validity of these measures when used by healthcare regulators and funders to

justify decisions. To better understand the impact of neurological diseases on the quality of life of affected individuals, my research combines quantitative and qualitative methodology.

Current studies:

- Assessment and rehabilitation in a longitudinal observational study of patients with neurogenetic disease [Collaborator, University of Auckland]
- eyeNG: Characterising the Ocular Phenotype of Neurogenetic Diseases [Principal Investigator, University of Auckland]
- VisuALLeys-ION: Virtual Reality-Based Assessment of Visual Function in Inherited Optic Neuropathies [Co-Investigator, University of Cambridge]
- ORION: An observational Outcomes Research study in Inherited Optic Neuropathies to determine the natural history of IONs and identify novel biomarkers of disease. [Co-Investigator, University of Cambridge]
- ION-PROM: Development of an Inherited Optic Neuropathy Patient Reported Outcome Measure to capture and measure the experiences of individuals affected by inherited optic neuropathies. Validation of the new PROM (Cambridge impact of mitochondrial vision impairment due to inherited optic neuropathy – mitoVISION-IQ) [Co-Investigator, University of Cambridge]
- eyeHD: Assessing Huntington's Disease patients for ophthalmological abnormalities as a measure of disease stage. [Collaborator, University of Cambridge]

1f. Professional distinctions and memberships (including honours, prizes, grants, scholarships, boards, editorial and/or governance roles, etc.)

Honours and Prizes

2024, Abstract of Distinction, American Academy of Neurology Annual Meeting

2024, Thomas and Susan Carlow Young Investigator Award, North American Neuro Ophthalmology Society

2021, Jim McLeod Advanced Trainee Award, Australian and New Zealand Association of Neurologists

2018, Best Walsh-Williams Presentation, Neuro-Ophthalmology Society of Australia Annual Meeting

Scholarships and Grants

2025, Grant Recipient, PBRF Small Grant, University of Auckland, NZ\$3,819.84

2024 – 2029, Senior Clinical Research Fellowship, Neurological Foundation, NZ\$166,939

2024, Grant Recipient, Devices and Advanced Therapies Pump Priming Award, NIHR Cambridge BRC, £7,340

2023, Bushell Travelling Fellowship in Medicine or the Allied Sciences, Royal Australasian College of Physicians, A\$10,000

2021 – 2022, Aotearoa New Zealand Fellows Research Entry Scholarship, Royal Australasian College of Physicians, NZ\$21,000

2020 – 2023, Grant Recipient, International Foundation for Optic Nerve Diseases, US\$25,000

2020 – 2023, Cambridge-Rutherford Memorial PhD Scholarship, Royal Society of New Zealand Te Apārangi and Cambridge Trust (CCEIT), £180,000

2019 – 2020, V J Chapman Fellowship, Neurological Foundation, NZ\$128,894

Professional Memberships, Boards and Governance Roles

2023 – present, Associate Editor, Editorial Board, American Journal of Ophthalmology International

2021 – present, North American Neuro Ophthalmology Society

2016 – present, American Academy of Neurology

2015 – present, Australian and New Zealand Association of Neurologists

1g. Total number of peer reviewed publications	Journal articles	Books	Book chapters, books edited	Conference proceedings
	29 (h-index 12)	0	3	36

PART 2

2a. Research publications and dissemination	
Peer-reviewed journal articles	
1.	Healy, D., Hanna, A., Muthusamy, B., Sharma, R.A., & Chen, B.S. Ocular complications of disease modifying therapies in inflammatory demyelinating disorders of the central nervous system. <i>Practical Neurology</i> (under review).
2.	Chen, B.S. , Perot, S., Taiel, M., Yu-Wai-Man, P., & Horton, M. Rasch Analysis of the NEI-VFQ-25: Vision-Related Quality of Life in Leber Hereditary Optic Neuropathy After Lenadogene Nolpharvovec Gene Therapy. <i>BMJ Ophthalmology Open</i> (under review).
3.	Chen, B.S. , Seikus, C., Ferguson, J., Tadić, V., Horton, M., Yu-Wai-Man, P., & Archer, S. 'Adrift From the World': Exploring the Lived Experiences of Individuals Affected by an Inherited Optic Neuropathy in the United Kingdom – A Qualitative Study. <i>Value in Health</i> (under review).
4.	Riboni Verri, G., Gautam, R., Chen, B.S. , & Cuniffe, N.G. Myelination of the Retinal Nerve Fibre Layer: a case report. <i>Multiple Sclerosis Journal</i> (under review).
5.	Chen, B.S. , & Newman, N.J. (2025) Clinical trials in Leber hereditary optic neuropathy: outcomes and opportunities. <i>Current Opinion in Neurology</i> 38, 79-86
6.	Riboni-Verri, G., Chen, B.S. , McMurran, C.E., Halliwell, G.J., Brown, J.W.L., Coles, A.J., & Cuniffe, N.G. (2024) Visual outcome measures in clinical trials of remyelinating drugs. <i>BMJ Neurology Open</i> 6:e000560.
7.	Britton, J.O.T., Yu-Wai-Man, P., & Chen, B.S. (2023) Blurred Disc Margins. <i>Journal of Neuro-Ophthalmology</i> [E-pub. doi:10.1097/WNO.0000000000001842]
8.	Chen, B.S. , Yu-Wai-Man, P., & Horton, M. (2023) Psychometric validity of the Visual Function Index in Leber hereditary optic neuropathy. <i>Translational Vision Science and Technology</i> 12:23
9.	Barboni, P., La Morgia, C., Cascavilla, M.L., Hong, E.H., Battista, M., Majander, A., Caporali, L., Starace, V., Amore, G., Renzo, A.D., Carbonelli, M., Nucci, P., Jurkute, N., Chen, B.S. , Panebianco, R., De Negri, A.M., Sadun, F., Parisi, V., Bandello, F., Sadun, A.A., Carelli, V., & Yu-Wai-Man, P. (2023) Childhood-Onset Leber Hereditary Optic Neuropathy - Clinical and Prognostic Insights. <i>American Journal of Ophthalmology</i> 249:99-107
10.	Chen, B.S. , Harvey, J.P., Gilhooley, M.J., Jurkute, N., & Yu-Wai-Man, P. (2023) Mitochondria and the eye – manifestations of mitochondrial diseases and their management. <i>Eye</i> 37:2416-2425
11.	Chen, B.S. , & Britton, J.O.T. (2023) Expanding the clinical spectrum of idiopathic intracranial hypertension. <i>Current Opinion in Neurology</i> 36:43-50
12.	Chen, B.S. , Yu-Wai-Man, P., & Newman, N.J. (2022) Developments in the Treatment of Leber Hereditary Optic Neuropathy. <i>Current Neurology and Neuroscience Reports</i> 22:881-892
13.	Chen, B.S. , & Yu-Wai-Man P. (2022) From Bench to Bedside-Delivering Gene Therapy for Leber Hereditary Optic Neuropathy. <i>Cold Spring Harbor Perspectives in Medicine</i> 12:a041282
14.	Chen, B.S. , Galus, T., Archer, S., Tadić, V., Horton, M., Pesudovs, K., Braithwaite, T., & Yu-Wai-Man, P. (2022) Capturing the experiences of patients with inherited optic neuropathies: a systematic review of patient-reported outcome measures (PROMs) and qualitative studies. <i>Graefe's Archive for Clinical and Experimental Ophthalmology</i> 260:2045-2055
15.	Asnafi, S., Chen, B.S. , Biousse, V., Newman, N.J., & Saindane, A.M. (2022) Intracranial computed tomography histogram analysis detects changes in the setting of elevated intracranial pressure and normal imaging. <i>Neuroradiology Journal</i> 35:718-723
16.	Chen, B.S. , Holzinger, E., Taiel, M., & Yu-Wai-Man, P. (2022) The impact of Leber hereditary optic neuropathy on the quality of life of patients and their relatives: A qualitative study. <i>Journal of Neuro-ophthalmology</i> 42:316-322
17.	Mishra, R., Chen, B.S. , Richa, P., & Yu-Wai-Man, P. (2021) Wolfram syndrome: new pathophysiological insights and therapeutic strategies. <i>Therapeutic Advances in Rare Disease</i> [E-pub. doi:10.1177/26330040211039518]
18.	Chen, B.S. , & Anderson, N.E. (2021) Subarachnoid hemorrhage and superficial siderosis in a patient with pseudoxanthoma elasticum. <i>Neurology and Clinical Neuroscience</i> 9:327-329

19. **Chen, B.S.**, Meyer, B.I., Saindane, A.M., Bruce, B.B., Newman, N.J., & Biousse, V. (2021) Prevalence of incidentally detected signs of intracranial hypertension on magnetic resonance imaging and their association with papilledema. *JAMA Neurology* 78:718-725
20. Buchowicz B., **Chen, B.S.**, Bidot, S., Bruce, B.B., Newman, N.J., Saindane, A.M., Levy, J.M., & Biousse, V. for the CSF-Leak Study Group. (2021) Prediction of post-operative risk of raised intracranial pressure after spontaneous skull base cerebrospinal fluid leak repair. *Journal of Neuro-ophthalmology* 41:e490-e497
21. **Chen, B.S.**, Newman, N.J., & Biousse, V. (2021) Atypical presentations of idiopathic intracranial hypertension. *Taiwan Journal of Ophthalmology* 11:25-38
22. Meyer, B.I., **Chen, B.S.**, Biousse, V., & Newman, N.J. (2021) Homonymous thinning on macular optical coherence tomography indicating retrograde trans-synaptic degeneration from occipital infarctions. *Taiwan Journal of Ophthalmology* 11:89-92
23. Mulroy E., Snow B., Bok A., Simpson M., Smith A., Taylor K.M., Lockhart M., Lam B.B.J., Frampton C., Finucane G., Schweder P., **Chen B.**, McMahon A., & Macdonald L. (2021) A long-term follow-up of safety and clinical efficacy of NTCELL® [Immunoprotected (Alginate-encapsulated) porcine choroid plexus cells for xenotransplantation] in patients with Parkinson's disease. *Parkinsonism & Related Disorders* 82:128-132
24. **Chen, B.S.**, Asnafi, S., Lin, M.Y., Bruce, B.B., Lock, J.A., Sharma, R.A., Newman, N.J., Biousse, V., & Saindane, A.M. (2020) Optic nerve angle in idiopathic intracranial hypertension. *Journal of Neuro-ophthalmology* 41:e464-e469
25. **Chen, B.S.**, Biousse, V. & Newman, N.J. (2019) Mitochondrial DNA 13513G>A mutation presenting with Leber's hereditary optic neuropathy. *Clinical and Experimental Ophthalmology* 47:1202-1204
26. **Chen, B.S.**, Lance, S., Lallu, B. & Anderson, N.E. (2019) Visual snow: Not so benign. *Journal of Clinical Neuroscience* 64:37-39
27. Snow, B., Mulroy, E., Bok, A., Simpson, M., Smith, A., Taylor K. M., Lockhart, M., Lam, J. B. B., Frampton, C., Finucane, G., Schweder, P., **Chen, B.**, McMahon, A. & Macdonald, L. (2019). A Phase IIb, Randomised, Double-blind, Placebo-controlled, Dose-ranging Investigation of the Safety and Efficacy of NTCELL® [Immunoprotected (Alginate-Encapsulated) Porcine Choroid Plexus Cells for Xenotransplantation] in Patients with Parkinson's Disease. *Parkinsonism & Related Disorders* 61:88-93
28. **Chen, B.S.**, Cleland, J., King, R. I., & Anderson, N. E. (2019) CADASIL presenting with focal and generalised epilepsy due to a novel NOTCH3 mutation. *Seizure* 66: 36-38
29. **Chen, B.S.**, Wong, H. C., Hawkins, S., & Huggins, L. (2018). Permanent peritoneal ports for the management of recurrent malignant ascites: A retrospective study and review. *Internal Medicine Journal* 48(12):1524-1528
30. Karunasinghe, N., Han D. Y., Zhu, S. Yu, J., Lange, K., Duan, H., Medhora, R., Singh, N., Kan, J., Alzahr, W., **Chen, B.**, Ko, S., Triggs, C. M., & Ferguson, L. R. (2012). Serum selenium and single nucleotide polymorphisms in genes for selenoproteins: Relationship to markers of oxidative stress in men from Auckland, New Zealand. *Genes and Nutrition* 7(2): 179-190
31. **Chen B.S.**, Papali'i-Curtin, A. T., & Al-Ali, S. (2012). Reply to the editor. *Journal of Thoracic and Cardiovascular Surgery* 143(2):762
32. Al-Ali, S., **Chen, B.S.**, Papali'i-Curtin, A.T., Timmins, A., Bergin, C., Raudkivi, P., & Cooper, J. (2011). Adequacy of brain and spinal blood supply with antegrade cerebral perfusion in a rat model. *Journal of Thoracic and Cardiovascular Surgery* 141(4):1070-6

Peer reviewed book chapters, books edited

1. **Chen, B.S.**, Klopstock, T., Sahel, J.A., & Yu-Wai-Man, P. (2024) 'Gene Therapy' in T. Klopstock (Ed.), *Leber Hereditary Optic Neuropathy* (pp.80-86). UNI-MED.
2. **Chen B.S.**, Levy, J.M., Biousse, V. (2023) 'Pathophysiology of Spontaneous Cerebrospinal Fluid Leaks and Their Relationships with Idiopathic Intracranial Hypertension' in R. Sindwani & C. Roxbury (Eds.), *Cerebrospinal Fluid Rhinorrhea Comprehensive Guide to Evaluation and Management* (pp.96-102). Elsevier.

3. Li, S., Sharma, R.A., & **Chen, B.S.** (2022) Update on Optic Neuritis in Adults: Multiple Sclerosis, Neuromyelitis Optica Spectrum Disorder, and Myelin Oligodendrocyte Glycoprotein Antibody-Associated Disease. In Yanoff, M. (Ed.), *Advances in Ophthalmology and Optometry*. 7:279-293. Elsevier.

Peer reviewed conference proceedings

1. Holland, J., Riboni-Verri, G., Gautam, R., Mukherjee, T., **Chen, B.S.**, Coles, A., & Cuniffe, N. (2024) Optical coherence tomography optic neuritis biomarkers in multiple sclerosis are associated with impaired trivector Cambridge Colour Test chromatic sensitivity, and full-field and multifocal visual evoked potential latency across a wide age range. *Multiple Sclerosis Journal*, 3:sup:ECTRIMS 2024 – ePoster, 946-947
2. **Chen, B.**, Seikus, C., Ferguson, J., Yu-Wai-Man, P., & Archer, S. (2024) 'Adrift from the World': Understanding how Inherited Optic Neuropathies Impact on Quality of Life (S40.002). *Neurology* 102(17_supplement_1) doi:10.1212/WNL.0000000000206261
3. Riboni-Verri, G., **Chen, B.S.**, Cuniffe, N., Coles, A. (2023) Relationship between structural and functional markers of demyelination and neuroaxonal loss in people with multiple sclerosis, with and without a history of optic neuritis. *Multiple Sclerosis Journal*, 3:sup:MSMilan2023, 1-1224.
4. **Chen, B.S.**, Meyer, B.I., Saindane, A.M., Bruce, B.B., Newman, N.J., & Biousse, V. (2021) 039 Prevalence of MRI signs of intracranial hypertension and their association with papilledema: a prospective study using ocular fundus photography. *BMJ Neurology Open* 3(Suppl 1):A15.1-A15.
5. **Chen, B.S.**, Cleland, J.C., King, R.I., & Anderson, N.E. (2018) 062 Cadasil presenting with focal and generalised epilepsy due to a novel NOTCH3 mutation. *Journal of Neurology, Neurosurgery and Psychiatry* 89:A25.3-A26.
6. **Chen B. S.**, Barber P. A., Stinear C. M. (2017) Transcranial magnetic stimulation in patients with functional limb weakness. *Journal of Neurology, Neurosurgery and Psychiatry* 88:e1.

Other forms of dissemination (reports for clients, technical reports, patents, popular press, public outreach, community engagement etc.)

1. **Chen, B.S.** (2025) Visual Issues and MS. Webinar for Auckland MS. Available online: <https://www.youtube.com/watch?v=wV9vLDOF4bQ>. Accessed April 6, 2025.
2. **Chen, B.S.** (2024) Investigating quality of life in inherited optic neuropathies: Evaluating patient experiences and outcome measures. Doctoral Thesis. University of Cambridge. Apollo – University of Cambridge Repository. Available online: doi:10.17863/CAM.114577
3. **Chen, B.S.** (2024) Optic Neuritis and MS. Webinar for Auckland MS. Available online: <https://www.youtube.com/watch?v=IR3yJgFFGdY>. Accessed February 15, 2025.
4. **Chen, B.S.** (2023) How Does Gene Therapy Work? Research Information Talk for NIHR Cambridge Biomedical Research Centre – CUH PPI Talk Series. Available online: <https://www.youtube.com/watch?v=hSgUKNifozM>. Accessed February 15, 2025.
5. **Chen, B.S.** (2022) Overview of Qualitative Research Projects for LHON. LHON Society – Patient and Family Day 2022. Available online: <https://vimeo.com/1053434392>. Accessed February 15, 2025.
6. **Chen, B.S.** (2022) A commentary on: Long-Term Visual Prognosis in Patients With Aquaporin-4-Immunoglobulin G-Positive Neuromyelitis Optica Spectrum Disorder. PracticeUpdate website. Available online: <https://www.practiceupdate.com/content/factors-associated-with-visual-prognosis-in-patients-with-aqp4-igg-positive-neuromyelitis-optica-spectrum-disorder/141665/65/5/1>. Accessed April 4, 2024.
7. **Chen, B.S.** (2022) A commentary on: Comparative analysis of immunosuppressive therapies for myelin oligodendrocyte glycoprotein antibody-associated optic neuritis: a cohort study. PracticeUpdate website. Available online: <https://www.practiceupdate.com/content/efficacy-of-immunosuppressive-therapies-for-patients-with-myelin-oligodendrocyte-glycoprotein-antibody-associated-optic-neuritis/144835/65/5/1>. Accessed April 4, 2024.
8. **Chen, B.S.** (2022) Optical Coherence Tomography (OCT) – A Review. Paper presented at the New Zealand Winter Multiple Sclerosis Meeting, Queenstown, New Zealand. 12 Aug – 13 Aug 2022.

9. **Chen, B.S.** (2022) Interview discussing visual issues in multiple sclerosis for The Multiple Sclerosis Trust Breaking It Down podcast. Available online: [https://www.youtube.com/watch?v=u0 - LZtvw28](https://www.youtube.com/watch?v=u0-LZtvw28)
10. **Chen, B.S.** (2018) Clinical Features of Neuromyelitis Optica Spectrum Disorders with Myelin Oligodendrocyte Glycoprotein or Aquaporin-4 Antibody: A Systematic Review. Master's Thesis. University College London.