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Thesis Title:
Bifocal Lens Control of Myopia Progression in Children

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Citation:
In this work, Dr. Cheng tested his theory that standard bifocal spectacle lenses did not inhibit myopia progression in children because they failed to address the changes to the vergence eye movement system created by the positive power of the near addition. He used a systematic approach to determine the lens and prism powers likely to be most suitable for myopia treatment. He liaised with a spectacle lens manufacturer to develop a bifocal lens which incorporated base-in prism power in the near addition. He then conducted a 2-year spectacle lens wear trial and found that this lens design was superior in controlling myopia progression in children compared with conventional lens designs. Based on the findings of his research, clinicians can now customize the near positive-lens and base-in prism powers to maximise the beneficial effect of these lenses whenever they are prescribed for the purpose of inhibiting myopia development in children.