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A new approach to the age-old problem of restoring accommodation

A capsular bag refilling procedure may offer a novel approach to the age-old problem of restoring ocular accommodation, according to Okihiro Nishi MD, who delivered this year's Ridley Medal Lecture.

"Our studies show that refilling the lens capsule with an injectable malleable material while preserving capsule integrity, including zonules and ciliary muscles, offers the potential to restore ocular accommodation," he said.

Explaining the background to his research, Dr Nishi said that many experimental studies over the past 30 years



Okihiro Nishi MD, who delivered this year's Ridley Medal Lecture, receives his medal from Paul Rosen

cured silicone gel, endocapsular polymerisation by ultraviolet light, expansible HEMA-IOL and collagen gel with high concentration. Other approaches, pioneered by Dr Nishi, included the use of endocapsular balloon and the sealing of mini curvilinear capsulorhexis by a plug method.

Turning to theories of accommodation, Dr Nishi said that accommodation and disaccommodation can be understood as a balance of elasticity between the lens matrix and capsule.

"The artificial lens matrix should be restored in the shape of the disaccommodated state," said Dr Nishi.

