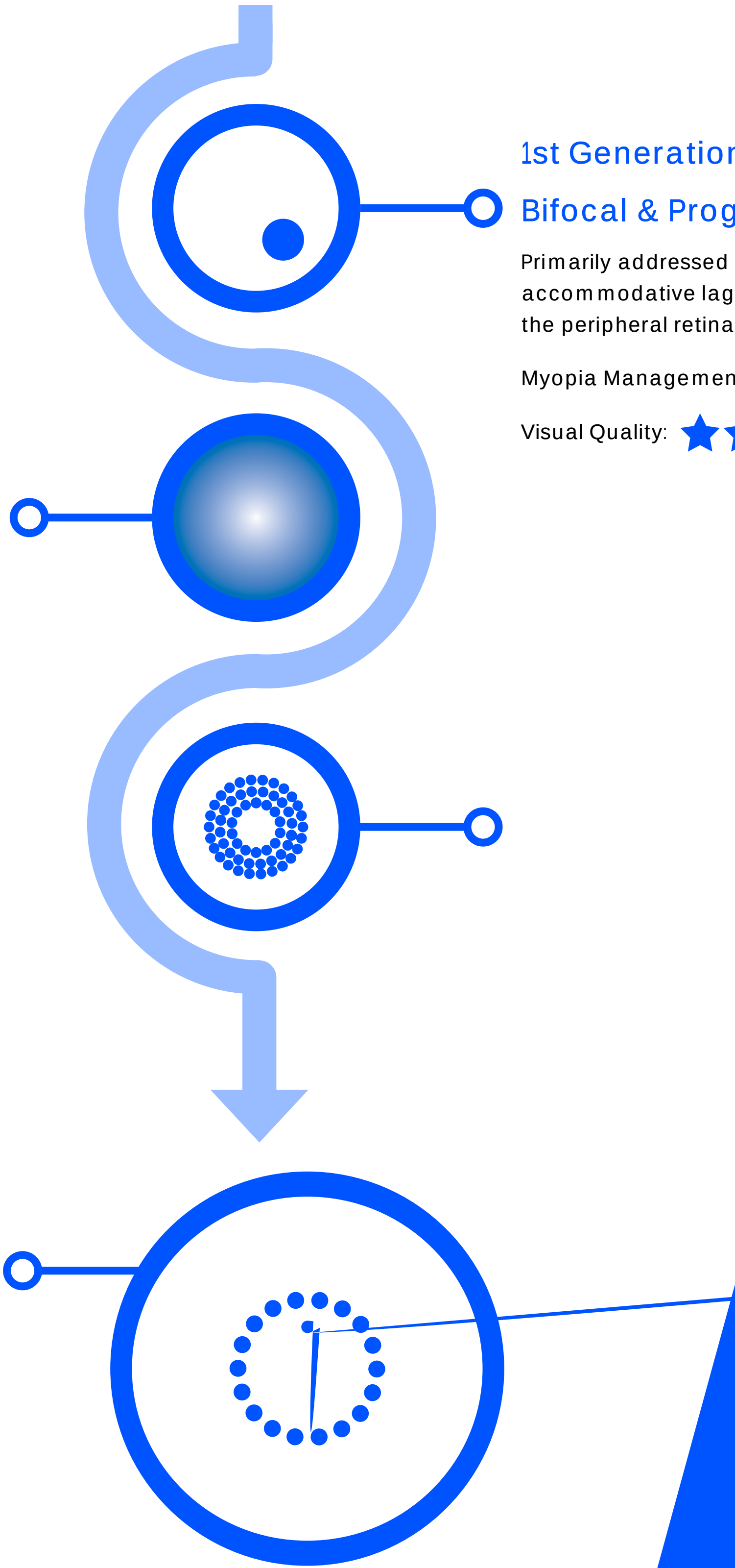
Rayzon

OCULISTA

Dynamic Defocus Lenses

Central Nervous System Mechanisms & Dynamic Defocus Design

Evolution of Myopia Management



1st Generation

Bifocal & Progressive

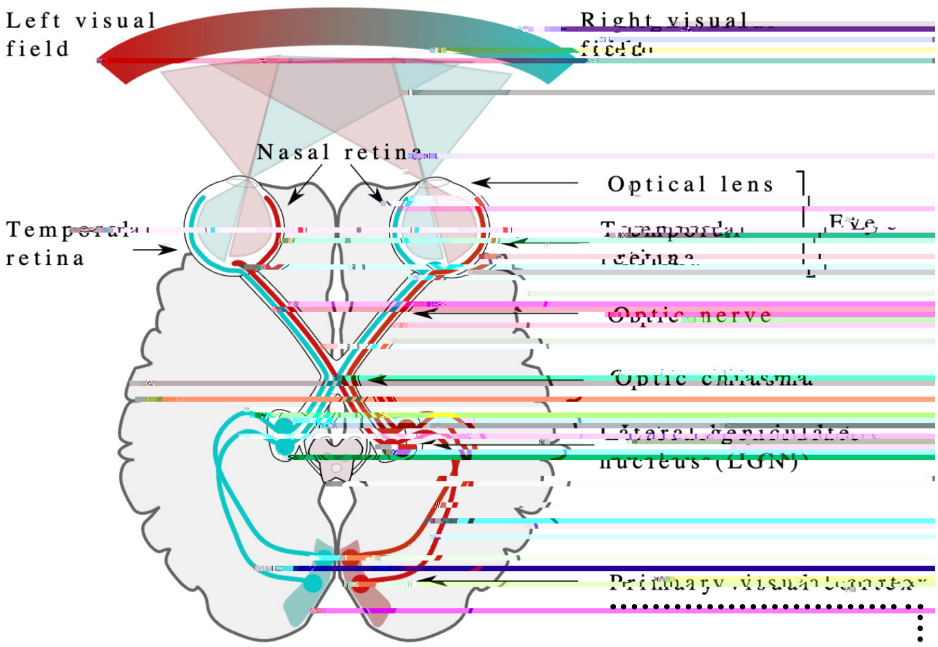
Primarily addressed presbyopia and accommodative lag; little stimulation to the peripheral retina.

Myopia Management: ★

Visual Quality: ★★

Myopia Progression

Central Nervous System Mechanisms

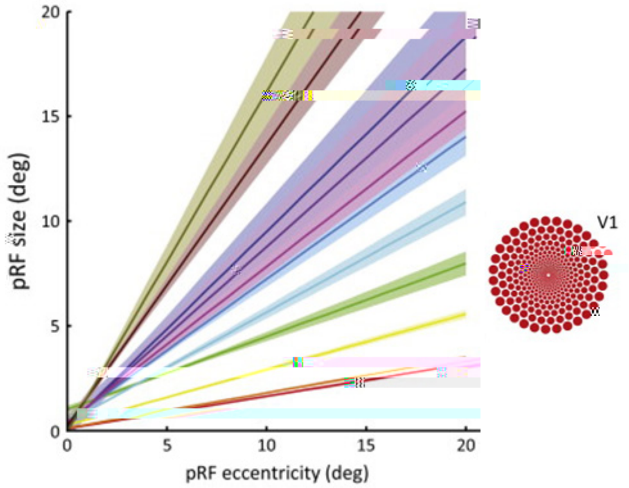


Distribution of Primary Visual Cortex Receptive Fields on the Retina

Receptive Field with Retinal Eccentricity
(Brian Wandell, 2015; Andrew Watson, 2014)

A visual receptive feld is the area in the retina where stimuli can activate a particular neuron in the brain; the neuron responds primarily to visual stimuli within this feld.

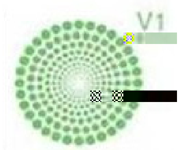
The primary visual cortex, also known as V1, is a crucial and direct visual information processing area in the cerebral cortex. According to research by Professor Brian A. Wandell of Stanford University, the receptive felds of V1 neurons that receive visual information have a characteristic and systematically varying distribution pattern across the retina based on retinal eccentricity (shown by the red pattern in the fgure).



V1 – Primary visual cortex

Receptive Field with Retinal Eccentricity
(Andrew Watson, 2014)

Professor Andrew Watson also identifed a similar varying dist=



OCULISTA® Dynamic Defocus Design Lens

8/9mm central optical zone

The lenslet array is arranged in a progressive pattern, proportionally simulating the visual cortex receptive fields to enhance efficiency.

Receptive Field Adaptation Array

Interlocking Design: RFAA Receptive Field Adaptation Array

The arrangement of defocus lenslets is optimized according to the distribution of primary visual cortex receptive fields. Maximized lenslets efficiency to enhance the stimuli to central neural system.

OCULISTA Micro-lens layout of the lens

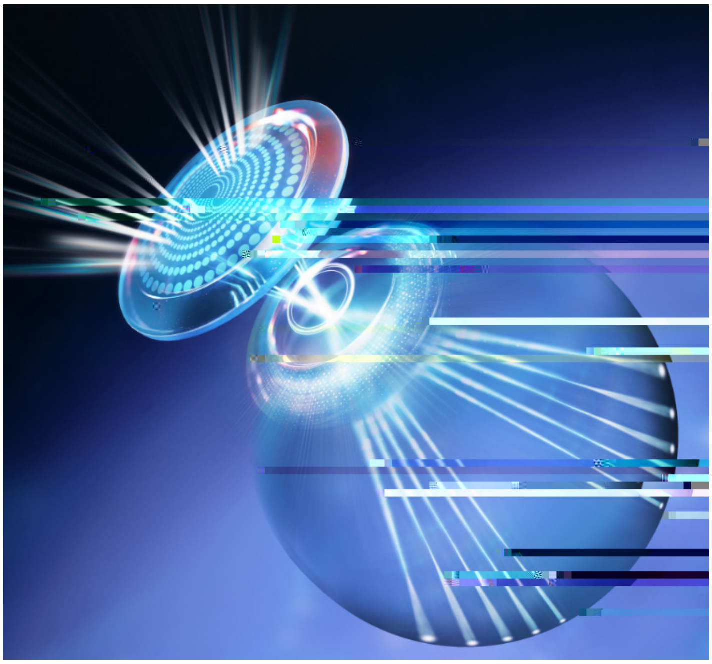
The image points formed by the lenslets are located in front of the retina, creating blur circles on the retinal plane. The size and shape of these blur circles correspond to receptive fields, thereby providing targeted visual cortex stimulation.

Interlocking Design

Smart-Balanced Defocus

Balanced Performance: SBD Smart-Balanced Defocus

286 lenslets are arranged within the effective area (central 6 rings), with intelligently varied defocus power to balance visual quality and visual cortex stimulation intensity.



Enhance Defocus Power

Increases myopia management

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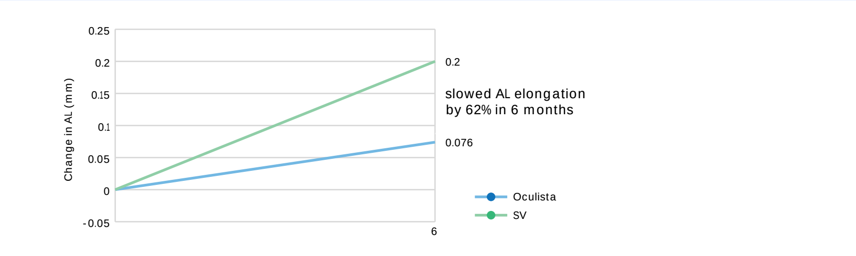
OCULISTA® Dynamic Defocus Lens Real-World Studies

1 A multicenter real-world study showed that 184 eyes completed a 6-month follow-up. After six months of lens wear, compared with the single-vision (SV) lens group, the Oculista® Defocus Lens slowed SER progression by 71.33% and axial length elongation by 62%. Among the children, 59% maintained stable SER, 32% increased by 0.25 D, 4% increased by 0.50 D, and 5% decreased by 0.25 D. In total, 95% showed no more than a 0.50 D increase. Slit-lamp examinations confrmed the reliable safety profle of the Oculista® Defocus Lens, with no adverse events reported during the trial. The lens demonstrated strong clinical benefts in effectively slowing myopia progression in adolescents, with proven safety and comfortable visual performance.



2 Observation results from Aier Eye Hospital between July and August 2024 showed that among adolescents ftted with the Oculista® Dynamic Defocus Lens, the 6-month (n=1116) relative effcacy in controlling myopia progression (slowing SER change) was 61.44% compared with single-vision lenses, and 54.93% at 12 months (n=253). Compared with DIMS-type lenses, the Dynamic Defocus design achieved a 31.82% higher myopia control effcacy at 6 months and 27.65% higher at 12 months. The optimized micro-lens array structure of the Dynamic Defocus design further enhances myopia control performance.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Eyewear Frame Selection Guide