Can new drug delivery systems solve the VEGF-injection dilemma?

Associate Professor Ilva Rupenthal
Director of the Buchanan Ocular Therapeutics Unit
Department of Ophthalmology
New Zealand National Eye Centre
Faculty of Medical and Health Sciences
The University of Auckland

Biosimilars
- a biologic medical product similar to an already approved product in terms of quality, safety and efficacy and marketed by an independent company following expiry of the original product patent

Currently approved for wet AMD

Currently enrolling for Phase II DAZZLE study; dosing every 4-5 months

Let’s make it bigger then!

Let’s make it bigger then!
- Small needle injection (25–27G)
- Payload for 6 months
- Zero-order kinetics
- Biocompatible and absorbable

3.5 mm scleral incision; 20 µl fill volume; semipermeable titanium membrane; Fick's law of diffusion

LADDER (Phase 2): 220 patients; 10, 40 and 100 mg/ml of Lucentis (vitreous hemorrhage initially 50%)
Primary endpoint (required refill): 8, 7, 13 and 15 months respectively

ARCHWAY (Phase 3): 360 patients; 100 mg/ml; mandatory refill every 6 months

“Simplicity is the ultimate sophistication”

AAV vector
Carries coding sequence for soluble mAb fragment against VEGF

www.botu.nz