



Wednesday, Mar. 18 at 9 am

@ 1120 Pharmaceutical Sciences



**“Biomedical polymers for ophthalmic applications:
from topical eye drops to scleral implants”**

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Polymeric ocular drug delivery systems have overcome some of the issues associated with conventional eye drops by prolonging corneal residence time, increasing tissue permeation and/or sustaining the drug release over prolonged periods. This presentation will give an overview of the research performed within the Buchanan Ocular Therapeutics Unit, including evaluation of in situ gelling eye drops and polymeric films for topical application as well as the assessment of PLGA nano- and microparticles for controlled peptide release after intravitreal injection. Finally, the development of novel stimuli-responsive implants for on-demand retinal drug delivery will be discussed.

Dr. Rupenthal is a Senior Lecturer in the Department of Ophthalmology and the Director of the Buchanan Ocular Therapeutics Unit, which aims to develop and translate ocular therapeutic related scientific research into the clinical setting. Ilva received a BPharm from the Philipps-University of Marburg, Germany and completed a PhD on ‘Ocular delivery of antisense oligonucleotides’ at the University of Auckland in 2008. In 2010, Ilva was awarded a prestigious three-year New Zealand Science and Technology Postdoctoral Fellowship to establish an ophthalmic pharmaceuticals group within the New Zealand National Eye Centre. Dr. Rupenthal has received several awards including the 2014 University of Auckland Early Career Research Excellence Award and the 2013 HRC Sir Charles Hercus Research Fellowship, while also being a winner of the Spark Entrepreneurship Ideas Challenges in 2012 and 2014.