

Thinking beyond 1080: -tangible technologies for the 21st century.

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Research on biocontrol of vertebrate pests has been a major focus for > 20 years in both New Zealand and Australia. Despite initiatives to bring together various strands of research, establishing the utility of many interesting approaches remains a challenge. For example, after research into virally vectored immunocontraception was discontinued Tyndale-Biscoe concluded in 2007 concluded "*that although the concept (virally vectored immunocontraception) did not fulfil early promise this was no reflection on the quality of the science*". Meanwhile responding to the continuing difficulties with 1080 and brodifacoum, a Lincoln University consortium has emerged which is focusing on providing alternative technologies within 1-10 years. This grouping embraces inventors, researchers, manufacturers, accountants, registration experts and marketers working in close collaboration. Experience gained in the introduction of cholecalciferol (Feracol®) and diphacinone (RatAbate®) for field possum and rodent control and Feratox® which was first registered in 1997 underpins new initiatives. Feratox® provides a humane kill of possums without secondary poisoning risk and is now being advanced for Dama and Bennett's wallabies. In addition, zinc phosphide and a combination of cholecalciferol and coumatetralyl are being registered to provide additional alternative toxins for effective possum, rodent and rabbit control. In parallel we are pursuing the registration of para-aminopropiophenone (PAPP) – a new poison undergoing field trials for humane control of stoats and cats. On the platform of proof of concept with PAPP alternative red blood cell toxicants are being advanced for other species not just in terms of research and development but in terms of tangible progress along the "registration pipeline" with both NZFSA and ERMA. This is most clearly illustrated by the submission of chemistry and manufacturing, toxicology, welfare, residue and efficacy dossiers for these two "new actives" in 2008.