

# Bioburst Intracellular Delivery

oncology peptides \* cytolytic gene delivery \*  
diagnostics peptides \* liposomes

ABL specialises in disease-responsive delivery of drugs and diagnostics. Intracellular pathogen infections are difficult to treat because adequate doses of antibiotic may not penetrate into, or remain within, the infected cell, where the pathogen may be slow-growing and require higher doses.

**Bioburst** can target cells and release soluble or solid drug or diagnostic payloads inside the cells, including by escaping from endosomes within the infected cell. Over 1000 times increased killing of intracellular pathogen infections has been achieved by endosomal delivery of **Bioburst** with antibiotic payloads, released from the endosome (right).

**ABL's** unique technical position is provided by peptides which are engineered to trigger the release or activate payloads held in liposomes. These particles are small enough (40 – 100 nm) to escape from blood capillaries supplying diseased tissue. By changing their payload, either drugs can be released or diagnostic agents can be activated to provide image contrast within cells.

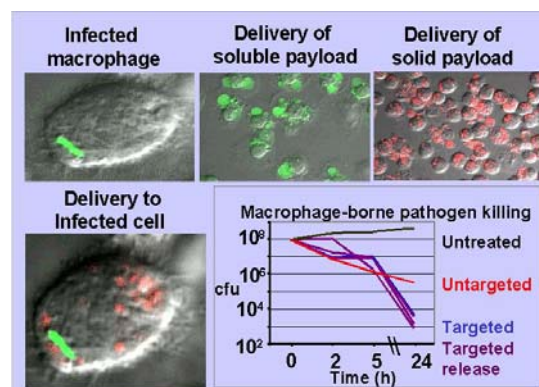
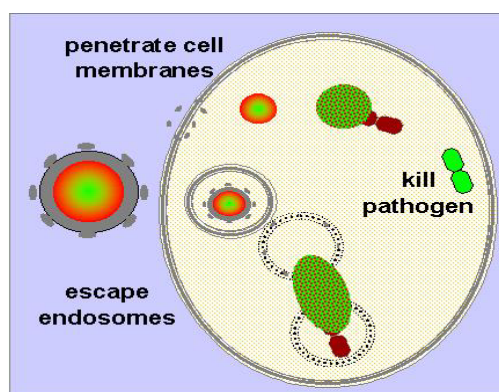
**Bioburst** can be targeted to cells and release their payload in response to intracellular conditions by simple modifications of the peptides to provide multiple triggers, which can be tailored to infections:

- physiochemical triggers: pH (sensitivity <0.4 units), redox;
- enzymic triggers eg: proteases, phosphatases, glycosidases;
- receptor/ligand and antigen binding.
- More than one trigger can be incorporated into the same peptide to operate in series requiring response to both for payload release or activation.

**No significant toxicity has been detected for Bioburst assemblies.  
Liposomes are made from generally-regarded as safe (GRAS) materials.**

## ABL – Bioburst, Delivering Your Drug To Difficult-To-Treat infections.

Materials supply, delivery solutions and \*licenses available.



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