

**P002** Specific inhibition of papain and cathepsin L  
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The liver fluke, *Fasciola hepatica* is responsible for parasitic infection in cattle and sheep resulting in huge financial losses in the agricultural sector. The parasite also infects up to 2 million humans world wide. Proteinases such as cathepsin L are secreted by the parasite and they facilitate infection of the host organism. Therefore it is important to develop specific inhibitors for these enzymes. The plant thiol protease papain has been extensively researched and is the archetype of the cysteine protease family. The enzyme is found in the latex of the papaya fruit and can be purified in large amounts quickly and cheaply. It has similar substrate specificity to cathepsin L and is being used as a model system for preliminary characterisation of cathepsin L inhibitors. These inhibitors will then be studied with cathepsin L.