

Title	Using blue technology for the green feeding of monogastric animals
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Keywords	Microalgae; Feed enzymes; Animal nutrition
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Summary	<p>Although having interesting properties for sustainable animal production and improvement of meat quality, microalgae are largely indigestible by monogastric animals due to the presence of recalcitrant microalgae components. Therefore, it is necessary to develop novel technologies to improve microalgal nutrient utilization and facilitate the cost-effective use of microalgae for animal feed industry. This proposal aims to develop two rationale combinations of enzymes for the degradation of recalcitrant microalgae complexes from <i>Arthrospira platensis</i> and <i>Chlorella vulgaris</i>, the two most commercially relevant microalgae. Approximately 200 recombinant enzymes, mainly from marine origin, will be produced and tested in vitro for the efficient degradation of each microalga. The selected enzyme mixes will be used in animal trials. Two experiments (<i>Arthrospira platensis</i> and <i>Chlorella vulgaris</i> trials) in pigs/poultry will be performed to test the hypothesis that the efficiency of microalgae-containing diets on animal performance, health and meat quality could be enhanced through the use of feed enzymes.</p>
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Supervision	
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