

DSM Science & Technology Awards (SOUTH) 2008	
Name	Martin Kietzmann
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Technical PLE, a crude pig liver extract, was one of the most frequently used enzymes in medical and fine chemistry, until the FDA banned its use for commercial production of drugs. Recombinant Alternative Pig Liver Esterase (APLE) was a solution. However, yields were far too low to be useful on an industrial scale. Taking into account the special structure of the APLE enzyme and the vast possibilities of microbial expression, Martin Kietzmann provided the basis to produce large amounts of this high-value biocatalyst. Thus, he paved the way for novel enzymatic processes which are not only economically feasible but also environmentally friendly, reducing waste and, therefore, ensuring sustainability. The novel strategy to produce APLE enabled DSM to commercialize APLE under the brand name PharmaPLE™ on the global market.