CLAIMS

1. A method of producing a fatty acid ester, the method comprising

(a) providing a mixture comprising a triacylglyceride and/or a fatty acid, a short-chained alcohol, and an enzyme comprising a sequence selected from any one of SEQ ID NO: 1 to 6, and 8 to 114; and

(b) incubating the mixture for a time and under conditions sufficient to allow for formation of the fatty acid ester.

2. The method according to claim 1, wherein the alcohol is selected from the group consisting of methanol, ethanol, n-propanol, and i-propanol, preferably methanol.

3. The method according to any one of claims 1 or 2, wherein the alcohol is present from 10% v/v to 70% v/v.

4. The method according to any one of claims 1 to 3, wherein the enzyme is selected from the group consisting of: SEQ ID NO: 90, SEQ ID NO: 5, SEQ ID NO: 22, SEQ ID NO:27, SEQ ID NO:35, SEQ ID NO:53, SEQ ID NO:54, SEQ ID NO: 55, SEQ ID NO: 57, SEQ ID NO: 60, SEQ ID NO: 62, SEQ ID NO: 64, SEQ ID NO: 68, SEQ ID NO: 70, SEQ ID NO: 73, SEQ ID NO: 74, SEQ ID NO:87, SEQ ID NO: 89, SEQ ID NO: 91, SEQ ID NO: 92, SEQ ID NO: 93, SEQ ID NO: 95, SEQ ID NO:96, SEQ ID NO: 100, SEQ ID NO: 107, SEQ ID NO: 108, and SEQ ID NO:109.

5. The method according to any one of claims 1 to 4, wherein the triacylglyceride is present in the mixture and the triacylglyceride is a long chain triacylglyceride.

6. The method according to claim 5, wherein the triacylglyceride is triolein.

7. The method according to any one of claims 5 or 6, wherein the enzyme is selected from the group consisting of: SEQ ID NO: 90, SEQ ID NO: 53, SEQ ID NO: 27, SEQ ID NO: 55, SEQ ID NO: 60, SEQ ID NO:73, and SEQ ID NO: 107.

8. The method according to any one of claims 1 to 4, wherein the fatty acid is present in the mixture and the fatty acid is a long chain fatty acid.

9. The method according to claim 8, wherein the fatty acid is oleic acid.

10. The method according to any one of claims 8 or 9, wherein the enzyme is selected from the group consisting of: SEQ ID NO: 90, SEQ ID NO: 57, SEQ ID NO: 74, SEQ ID NO: 92, SEQ ID NO: 93, and SEQ ID NO: 108.

11. The method according to any one of claims 1 to 4, wherein the triacylglyceride and/or fatty acid is palm oil fatty acid distillate.

12. The method according to any one of claims 1 to 11, wherein the enzyme comprises SEQ ID NO: 90.

13. A method of hydrolyzing an ester, the method comprising providing a mixture comprising a triacylglyceride, water and an enzyme comprising a sequence selected from the group consisting of: SEQ ID NO: 1, SEQ ID NO: 2, SEQ ID NO: 4, SEQ ID NO: 19, SEQ ID NO: 21, SEQ ID NO: 22, SEQ ID NO: 23, SEQ ID NO: 25, SEQ ID NO: 26, SEQ ID NO: 27, SEQ ID NO: 30, SEQ ID NO: 31, SEQ ID NO: 33, SEQ ID NO: 35, SEQ ID NO: 36, SEQ ID NO: 38, SEQ ID NO: 39, SEQ ID NO: 40, SEQ ID NO: 42, SEQ ID NO: 43, SEQ ID NO: 44, SEQ ID NO: 45, SEQ ID NO: 46, SEQ ID NO: 54, SEQ ID NO: 55, SEQ ID NO: 56, SEQ ID NO: 59, SEQ ID NO: 60, SEQ ID NO: 61, SEQ ID NO: 62, SEQ ID NO: 64, SEQ ID NO: 66, SEQ ID NO: 67, SEQ ID NO: 68, SEQ ID NO: 70, SEQ ID NO: 72, SEQ ID NO: 73, SEQ ID NO: 74, SEQ ID NO: 76, SEQ ID NO: 77, SEQ ID NO: 79, SEQ ID NO: 80, SEQ ID NO: 82, SEQ ID NO: 83, SEQ ID NO: 85, SEQ ID NO: 86, SEQ ID NO: 88, SEQ ID NO: 91, SEQ ID NO: 97, SEQ ID NO: 98, SEQ ID NO: 100, SEQ ID NO: 101, SEQ ID NO: 103, SEQ ID NO: 104, SEQ ID NO: 105, SEQ ID NO: 106, SEQ ID NO: 107, SEQ ID NO: 108, SEQ ID NO: 109, SEQ ID NO: 110, and SEQ ID NO: 113.

14. An isolated enzyme comprising a sequence selected from the group consisting of SEQ ID NO: 90, SEQ ID NO: 1, SEQ ID NO: 2, SEQ ID NO: 5, SEQ ID NO: 19, SEQ ID NO: 21, SEQ ID NO: 22, SEQ ID NO: 23, SEQ ID NO: 25, SEQ ID NO: 26, SEQ ID NO: 27, SEQ ID NO: 30, SEQ ID NO: 31, SEQ ID NO: 35, SEQ ID NO: 36, SEQ ID NO:38, SEQ ID NO: 39, SEQ ID NO: 40, SEQ ID NO: 42, SEQ ID NO: 43, SEQ ID NO: 44, SEQ ID NO: 45, SEQ ID No: 46, SEQ ID NO: 53, SEQ ID NO: 54, SEQ ID NO: 55, SEQ ID NO: 56, SEQ ID NO: 57, SEQ ID NO: 59, SEQ ID NO: 60, SEQ ID NO: 61, SEQ ID NO: 62, SEQ ID NO: 64, SEQ ID NO: 66, SEQ ID NO: 67, SEQ ID NO:68, SEQ ID NO: 70, SEQ ID NO: 72, SEQ ID NO: 73, SEQ ID NO: 74, SEQ ID NO:77, SEQ ID NO: 79, SEQ ID NO: 80, SEQ ID NO: 82, SEQ ID NO: 83, SEQ ID NO: 85, SEQ ID NO: 86, SEQ ID NO: 87, SEQ ID NO: 88, SEQ ID NO: 89, SEQ ID NO: 91, SEQ ID NO: 92, SEQ ID NO:93, SEQ ID NO:95, SEQ ID NO: 96, SEQ ID NO: 97, SEQ ID NO: 98, SEQ ID NO: 100, SEQ ID NO: 101, SEQ ID NO: 103, SEQ ID NO: 105, SEQ ID NO: 107, SEQ ID NO: 108, SEQ ID NO: 109, SEQ ID NO: 110 and SEQ ID NO: 113.

15. The enzyme according to claim 14, wherein the sequence is selected from the group consisting of SEQ ID NO: 30, SEQ ID NO: 39, SEQ ID NO: 40, SEQ ID NO: 46, SEQ ID NO: 85, and SEQ ID NO: 113.

16. The enzyme according to claim 14, wherein the sequence is selected from the group consisting of SEQ ID NO: 54, SEQ ID NO: 98, SEQ ID NO: 107, SEQ ID NO: 1, SEQ ID NO: 2, SEQ ID NO: 25, SEQ ID NO: 59, SEQ ID NO: 68, SEQ ID NO: 73, SEQ ID NO: 83, SEQ ID NO: 86, SEQ ID NO: 97, and SEQ ID NO: 101.

17. The enzyme according to claim 14, wherein the sequence is selected from the group consisting of SEQ ID NO: 96, SEQ ID NO: 70, SEQ ID NO: 5, SEQ ID NO: 35, SEQ ID NO: 22, SEQ ID NO: 30, SEQ ID NO: 43, SEQ ID NO: 44, SEQ ID NO: 53, SEQ ID NO: 57, SEQ ID NO: 64, SEQ ID NO: 66, SEQ ID NO: 73, SEQ ID NO: 74, SEQ

ID NO: 87, SEQ ID NO: 89, SEQ ID NO: 90, SEQ ID NO: 91, SEQ ID NO: 92, SEQ ID NO: 93, SEQ ID NO: 95, SEQ ID NO: 97, SEQ ID NO: 105, and SEQ ID NO: 108.

18. The enzyme according to claim 14 comprising SEQ ID NO: 90.

19. A polynucleotide encoding the enzyme according to any one of claims 14 to 18.

20. A vector or host cell comprising the polynucleotide according to claim 19.