[0012] 74. A region of a chloroplast genome of a green algae, obtained by the method of: 1) obtaining genomic DNA of the green algae; 2) obtaining a degenerate forward primer, wherein the forward primer is directed towards a psbB gene of the green algae; 3) obtaining a degenerate reverse primer, wherein the reverse primer is directed towards a psbH gene of the green algae; and 4) using the primers of step 2) and step 3) to amplify the region of the chloroplast genome of the green algae, wherein the amplified region is sequenced and comprises a nucleotide sequence, and wherein the nucleotide sequence is modified to comprise a nucleic acid sequence encoding for at least one protein.

[0013] 75. A vector useful in the transformation of the chloroplast genome of *Scenedesmus obliquus*, comprising a 5.2 kb region from the *Scenedesmus obliquus* chloroplast genome (*Scenedesmus* chloroplast sequence NCBI reference sequence: NC_008101, 057,611-062850bp), wherein the region comprises the nucleic acid sequence of SEQ ID NO: 125, or comprising a nucleotide sequence that is at least 80%, at least 85%, at least 90%, at least 95%, or at least 99% homologous to at least a 500 bp sequence of the nucleic acid sequence of SEQ ID NO: 125.

[0014] 76. An isolated nucleotide sequence comprising the nucleic acid of SEQ ID NO: 125, or comprising a nucleic acid sequence that is at least 80%, at least 85%, at least 90%, at least 95%, or at least 99% homologous to at least a 500 bp sequence of the nucleic acid sequence of SEQ ID NO: 125, wherein the isolated nucleotide sequence can be used to transform a chloroplast genome a *Scenedesmus sp.* 77. The isolated nucleotide sequence of claim 76, wherein the nucleic acid sequence of SEQ ID NO: 125 is modified to comprise a second nucleic acid encoding a protein.

[0015] 78. A host cell comprising a nucleic acid sequence of SEQ ID NO: 125, or comprising a nucleic acid sequence that is at least 80%, at least 85%, at least 90%, at least 95%, or at least 99% homologous to at least a 500 bp sequence of the nucleic acid sequence of SEQ ID NO: 125. 79. The host cell of claim 78, wherein the host cell is a host cell from a *Scenedesmus sp.* 80. The host cell of claim 78, wherein the nucleic acid sequence of SEQ ID NO: 125 is modified to comprise a second nucleic acid sequence encoding a protein.

[0015a] In one aspect, there is provided a process of transforming a chloroplast genome of a *Scenedesmus sp.* with at least one exogenous nucleotide sequence, comprising:

a) obtaining the exogenous nucleotide sequence, wherein the exogenous nucleotide sequence comprises a nucleic acid sequence encoding a protein;

b) binding the exogenous nucleotide sequence onto a particle; and

c) shooting the exogenous nucleotide sequence into the *Scenedesmus sp.* by particle bombardment using a biolistic device that has a helium pressure of 300 psi to 500 psi, wherein the chloroplast genome is transformed with the exogenous nucleotide sequence.

[0015b] In another aspect, there is provided a transformed chloroplast genome obtained by the process as defined above.

[0015c] In another aspect, there is provided a *Scenedesmus sp.* comprising the transformed chloroplast genome as defined above.

[0015d] In another aspect, there is provided the use of the *Scenedesmus sp.* as defined above in selecting for expression of the protein comprising, (a) obtaining the *Scenedesmus sp.* and (b) determining if expression of the protein results in either a positive or negative selection of the *Scenedesmus sp.*

BRIEF DESCRIPTION OF THE DRAWINGS

[0016] These and other features, aspects, and advantages of the present disclosure will become better understood with regard to the following description, appended claims and accompanying figures where:

[0017] **Figure 1** shows a graphical representation of the mutated psbA fragment and 3'UTR vector used to engineer $DCMU^r$ into *S. dimorphus*.

[0018] **Figure 2** shows amplification and digestion of DNA from psbA 264A $DCMU^r$ transformants (3 and 4) and *S. dimorphus* wildtype (WT). U = uncut DNA and C = cut DNA (digested with Xba1).

[0019] **Figure 3** shows a psbA S264 transformant that is $DCMU^r$ and $atrazine^r$.

[0020] **Figure 4** shows a graphical representation of p04-38.

[0021] **Figure 5** shows a graphical representation of p04-21.

[0022] **Figure 6** shows PCR amplification of DNA from *S. dimorphus* CAM^r transformants.

[0023] **Figure 7** shows a graphical representation of vector p04-31 used to transform *S. dimorphus*.

[0024] **Figure 8** shows a multiscreen of BD11 clones.

[0025] **Figure 9** shows a Western of SE0070 expressing BD11 (subclones of parent 2 and 4).

[0026] **Figure 10** shows endoxylanase activity in clarified lysates from *S. dimorphus* transformants containing the endoxylanase gene (parent 2 and 4).

[0027] **Figure 11** shows a graphical representation of p04-28.