

Examples of Plagiarism

From

Karin Kniseley, *A Student handbook for writing in biology*, 4th Ed.,
Sinauer Associates, Sunderland, MA (2013), Table 3.1, p. 43

Original Text (description of ATP synthase):

F_1 extends from the membrane with α and β subunits alternating around a central subunit γ . ATP synthesis occurs alternately in different β subunits, the cooperative tight-binding of $ADP + P_i$ at one catalytic site being coupled to ATP release at a second. The differences in binding affinities appear to be caused by rotation of the γ subunit in the center of the $\alpha_3\beta_3$ hexamer.

Source:

Fillingame RH. 1997. Coupling H^+ transport and ATP synthesis in F_1F_0 -ATP-syntheses: glimpses of interacting parts in a dynamic molecular machine. *The Journal of Experimental Biology* [Internet] [cited 2012 October 30]; 200: 217-224 Available from: <http://jeb.biologists.org/content/200/2/217.full.pdf+html>

Example 1:

According to Fillingame (1997), F_1 extends from the membrane with α and β subunits alternating around a central subunit γ . ATP synthesis occurs alternately in different β subunits, the cooperative tight-binding of $\text{ADP} + \text{P}_i$ at one catalytic site being coupled to ATP release at a second. The differences in binding affinities appear to be caused by rotation of the γ subunit in the center of the $\alpha_3\beta_3$ hexamer.

Fillingame RH. 1997. Coupling H^+ transport and ATP synthesis in F_1F_0 -ATP-synthases: glimpses of interacting parts in a dynamic molecular machine. The Journal of Experimental Biology [Internet] [cited 2012 October 30]; 200: 217-224 Available from: <http://jeb.biologists.org/content/200/2/217.full.pdf+html>

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Problem: The author's actual words are quoted without quotation marks. Extensive direct quotes should not be used in scientific articles. So, you must paraphrase. **Using the original text is plagiarism even when the source is cited!**

Example 2:

F_1 consists of α and β subunits alternating around a central subunit γ . In the β subunits, tight-binding of $ADP + P_i$ occurs at one catalytic site and ATP is released at a second. The difference in binding affinities may be caused by rotation of the γ subunit in the center (Fillingame 1997).

Fillingame RH. 1997. Coupling H^+ transport and ATP synthesis in F_1F_0 -ATP-synthases: glimpses of interacting parts in a dynamic molecular machine. The Journal of Experimental Biology [Internet] [cited 2012 October 30]; 200: 217-224 Available from: <http://jeb.biologists.org/content/200/2/217.full.pdf+html>

Example 2:

F_1 ~~extends from the membrane with~~ consists of α and β subunits alternating around a central subunit γ . ~~ATP synthesis occurs alternately in different~~ In the β subunits, ~~the cooperative tight-binding of~~ ADP + P_i occurs at one catalytic site ~~being coupled to~~ and ATP is released at a second. The ~~different~~ differences in binding affinities ~~appear to~~ may be caused by rotation of the γ subunit in the center ~~of the a_3b_3 hexamer~~.
(Fillingame 1997).

Problem: The basic sentence structure of the original was maintained. A few words were omitted or changed, but the text is still highly similar to the original.

Example 3:

ATP synthase consists of a trans-membrane protein (F_0), a central shaft (γ), and an F_1 head made up of α and β subunits. As protons enter F_0 , the shaft rotates, changing the conformation of the β subunits, allowing ADP and P_i to bind and be released as ATP.

Note: The text incorporates information from a wider context than the paragraph quoted earlier, and contains the essential information.

Problem: No citation! Not citing the source of information (unless widely accepted in the discipline) is also plagiarism.