Comparative study on malignant and benign human cancer cells and tissues with the passage of time under synchrotron radiation

Image article

In the current study, we have experimentally and comparatively investigated and compared malignant human cancer cells and tissues before and after irradiating of synchrotron radiation using Thermal Spectroscopy, Photothermal Spectroscopy, Thermal Microspectroscopy, Photothermal Microspectroscopy, Thermal Macrospectroscopy and Photothermal Macrospectroscopy. It is clear that malignant human cancer cells and tissues have gradually transformed to benign human cancer cells and tissues under synchrotron radiation with the passage of time (Figures 1–6).1–10

Figure 1 Thermal spectroscopy analysis of malignant cancer cells and tissues (A) before and (B) after irradiating of synchrotron radiation in transformation process to benign human cancer cells and tissues with the passage of time.

Figure 2 Photothermal spectroscopy analysis of malignant cancer cells and tissues (A) before and (B) after irradiating of synchrotron radiation in transformation process to benign human cancer cells and tissues with the passage of time.
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Figure 3 Thermal microspectroscopy analysis of malignant cancer cells and tissues (A) before and (B) after irradiating of synchrotron radiation in transformation process to benign human cancer cells and tissues with the passage of time.

Figure 4 Photothermal microspectroscopy analysis of malignant cancer cells and tissues (A) before and (B) after irradiating of synchrotron radiation in transformation process to benign human cancer cells and tissues with the passage of time.

Figure 5 Thermal macrospectroscopy analysis of malignant cancer cells and tissues (A) before and (B) after irradiating of synchrotron radiation in transformation process to benign human cancer cells and tissues with the passage of time.

Figure 6 Photothermal macrospectroscopy analysis of malignant cancer cells and tissues (A) before and (B) after irradiating of synchrotron radiation in transformation process to benign human cancer cells and tissues with the passage of time.

Conclusion
It can be concluded that malignant human cancer cells and tissues have gradually transformed to benign human cancer cells and tissues under synchrotron radiation with the passage of time.

Acknowledgements
Author declares no acknowledgment.

Conflict of interest
The author declares no conflict of interest.

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