

Multimodal imaging refers to the use of different imaging techniques to obtain a comprehensive understanding of a biological system or disease. These imaging techniques may include:

Magnetic resonance imaging (MRI): a non-invasive imaging technique that uses magnetic fields to produce detailed images of the body.

Computed tomography (CT): a non-invasive imaging technique that uses X-rays to produce detailed images of the body.

Positron emission tomography (PET): a non-invasive imaging technique that uses radioactive tracers to produce images of the body's metabolism and biochemical activity.

Single-photon emission computed tomography (SPECT): a non-invasive imaging technique that uses radioactive tracers to produce images of the body's metabolism and biochemical activity.

Optical coherence tomography (OCT): a non-invasive imaging technique that uses light to produce high-resolution images of tissue structures.

Ultrasound imaging: a non-invasive imaging technique that uses sound waves to produce images of internal organs and tissues.

By combining these different imaging techniques, researchers and clinicians can obtain a more complete picture of the biological system or disease under study. This can help in the diagnosis and treatment of diseases, as well as in the development of new therapies and interventions. For example, in cancer research, multimodal imaging can be used to detect the presence of tumors, assess their size and location, and monitor their response to treatment.

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