

# Simulation of images for a defined biological purpose

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Our approach is to develop new computer tools for images simulation with a clearly defined medical (or biological) objective [1, 2, 3, 4, 5]. These can include diagnostic and prognostic software [2, 3] that exploits available images and data about the patient and his / her disease, or assessment of therapy through pre- and post-treatment imaging [4, 5]. This latter axis includes the development of imaging biomarkers to quantify the effect of a new drug [5]. Image simulation algorithms are based on mathematical (geometric, statistical), biological, and / or physicochemical models of living organisms on several scales in order to construct a partial numerical model of the patient's anatomy and physiology and its pathology.

## Références

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