

## Porous silicon, a biodegradable semiconductor for nanomedicine

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The application of nanotechnologies into medicine promises to offer solutions when applied to health challenges such as cancer. Our research projects aim to develop biodegradable multifunctional anti-cancer materials based on mesoporous silicon-based nanostructures to be used for the local treatment of tumors. Porous silicon nanoparticles are fully bioresorbable, and nontoxic *in vivo*, in addition they can be excited by near infrared two photon excitation light offering possibilities for phototherapies, and for light triggered and focalized treatment.

The development of photoactive porous silicon nanovectors functionalized with organic ligands for applications in imaging, photo-activated therapies, as well as for tissue engineering will be presented.

### References

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