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New generation of compact laser sources for imaging, diagnostics and treatment in biomedicine

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In the last decades, progress in the development compact laser sources has brought to science and industry an enormous number of new applications. Previously, such lasers were mostly utilized in the communication and other industries. However, now such laser sources are becoming adopted in biomedicine and related fields. In this talk, the recent progress on the development of novel compact laser sources generating light across broad spectral ranges in CW and ultra-short pulse regimes will be discussed. Some of the most promising applications where such laser sources are being used in biophotonics, particularly focussing on multi-photon imaging and cancer diagnostics and photo treatment will be reviewed.

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