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Biomagnetic Imaging Applications using NV Centers in Diamond DAVID GLENN, DAVID LESAGE, Harvard-Smithsonian Center for Astrophysics, COLIN CONNOLLY, Quantum Diamond Technologies, Inc., RONALD WALSWORTH, Harvard-Smithsonian Center for Astrophysics — We present new measurements of magnetic fields produced by a range of biological specimens using a wide-field magnetic imaging system based on NV centers in diamond. In particular, we show (i) the first magnetic images of a previously unstudied strain of magnetotactic bacteria, and (ii) a general platform for magnetic imaging of immunomagnetically labeled cells, which provides a useful alternative to traditional immunofluorescence techniques in the presence of strong autofluorescence and/or optically scattering media

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