

# **Michael Hamblin, PhD**

**Principal Investigator, Wellman Center for Photomedicine at Massachusetts General Hospital at Vielight**

Boston, MA, US

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## **Biography**

Michael Hamblin is a Principal Investigator at the Wellman Center for Photomedicine at Massachusetts General Hospital, an Associate Professor of Dermatology at Harvard Medical School and a member of the Affiliated Faculty of Harvard-MIT Division of Health Science and Technology. He was trained as a synthetic organic chemist and received his PhD from Trent University in England. He joined Wellman Labs in 1994. He worked initially in targeted photodynamic therapy (PDT) and prepared and studied conjugates between photosensitizers and antibodies or targeted proteins and polymers of varying charge. His research interests are now broadly in the area of phototherapy for multiple diseases. One focus is the study of new photosensitizers for infections, cancer, and heart disease. A specialty of the Hamblin lab is the development of new animal models for testing PDT approaches. The study of how PDT can activate the host immune system to attack advanced cancer is a new direction in the Hamblin lab. A second focus is low-level light therapy (LLLT) or photobiomodulation for wound healing, arthritis, traumatic brain injury, psychiatric disorders, and hair regrowth. Dr. Hamblin has published over 289 peer-reviewed articles, over 150 conference proceedings, book chapters and international abstracts, and he holds eight patents. He has edited the most recent and comprehensive textbook on PDT entitled "Advances in Photodynamic Therapy: Basic, Translational and Clinical". He also co-edited a book entitled "Photodynamic Inactivation of Microbial Pathogens: Medical and Environmental Applications", an authoritative and comprehensive textbook entitled "Handbook of Photomedicine" with 70 chapters and 800 pages, a textbook entitled "Applications of Nanoscience in Photomedicine" and another comprehensive handbook called "Handbook of Low Level Laser (Light) Therapy" is in press. Four other textbooks are in progress.

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## **Industry Expertise**

Education/Learning, Research

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## **Areas of Expertise**

Microscopy, Molecular Biology, Photomedicine, Fluorescence Microscopy, Biotechnology

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## **Affiliations**

Photochemistry and Photobiology (Journal) : Associate Editor, CIMIT Center : Principal Investigator, Photodynamic Therapy and Photodiagnosis (Journal) : Associate Editor, Massachusetts General Hospital : Associate Professor, Harvard Medical School : Associate Professor

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## **Education**

**Heriot-Watt University**  
Post Doc Biosynthesis

**New University of Ulster**  
Post Doc Biosynthesis

**Trent Polytechnic**  
Ph.D. Organic Chemistry

**Kent University**  
M.Sc. Enzyme Chemistry

**Exeter University**  
B.Sc. Chemistry

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