People

Faculty

Emeritus Faculty

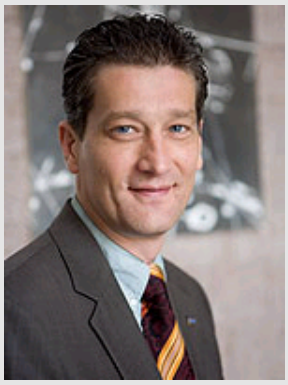
Part-time Lecturer

Staff

## Faculty

### Sergio Fantini

Professor, Department of Biomedical Engineering



**Contact Info**

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**View**
> Curriculum Vitae (PDF)
> Research Group website

#### *Education*

1992, Ph.D., University of Florence, Italy

#### *Honors and Awards*

- Graduate Student Council's Award for Outstanding Faculty Contribution to Graduate Studies, Tufts University (2004).
- NSF CAREER Award, National Science Foundation, Division of Bioengineering and Environmental Systems, Directorate for Engineering, 2001 – 2006.
- Outstanding Faculty Award, Tufts University (2001)

#### *Research Interests*

Research activities in Prof. Fantini's group include quantitative modeling of light propagation in optically turbid media, the design of optical instrumentation for medical imaging, the development of novel near-infrared spectroscopy and imaging techniques for medical diagnostics, and a number of applications on animal models and human subjects. Specific applications are aimed at functional imaging of the brain, optical characterization of peripheral nerve stimulation, diffuse optical mammography, hemodynamic monitoring of skeletal muscles, and quantitative tissue oximetry.

#### *Biography*

Sergio Fantini received his doctoral degree in physics from the University of Florence, Italy, in 1992. His dissertation was based on a Raman scattering study of ceramic superconductors. From 1993 to 1999, Dr. Fantini held postdoctoral and faculty appointments at the University of Illinois at Urbana-Champaign, Department of Physics. In 1999, he joined Tufts University as an Assistant Professor, and has been one of the inaugural faculty members of the Department of Biomedical Engineering, created at Tufts in 2002. Dr. Fantini's research interests are in the area of biomedical optics, specifically in diffuse near-infrared spectroscopy and imaging of biological tissues. His research laboratory has ongoing projects aimed at non-invasive functional imaging of the brain, the study of optical signatures of peripheral nerve activation, and the development of novel instrumentation for optical mammography. Dr. Fantini's research has resulted in eight patents and more than one hundred-forty journal and conference proceedings publications.

#### *Teaching*

Professor Fantini is on sabbatical until Fall 2010.

#### *Professional Positions*

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|---|---|
| 2006 - 2009 | Associate Dean for Graduate Education, School of Engineering |
| 9/2004 - 8/2005 | Acting Associate Dean, School of Engineering |
| 9/2003 - 8/2006 | Associate Professor, School of Engineering, Department of Biomedical Engineering |
| 11/2002 - 8/2003 | Assistant Professor, School of Engineering, Department of Biomedical Engineering |
| 10/1999 - 10/2002 | Assistant Professor, School of Engineering, Department of Electrical Engineering and Computer Science |
| 8/1996 - 9/1999 | Research Assistant Professor, University of Illinois at Urbana-Champaign, Department of Physics |
| 8/1995 - 7/1996 | Visiting Lecturer, University of Illinois at Urbana-Champaign, Department of Physics |

#### *Membership in Professional Societies*

- Biomedical Engineering Society
- Optical Society of America
- SPIE – The International Society for Optical Engineering