

Carolyn Unglert

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PROFILE

Final-year PhD candidate in biomedical optics, with an academic background in engineering and medical sciences, research experience at Massachusetts General Hospital, industry experience at Air Liquide, and fluency in English, French and German. Passionate about imaging and interventional procedures.

EDUCATION

- Since 2012 **PhD Candidate**
Harvard-MIT Health Sciences & Technology
Program: Medical Engineering & Medical Physics
- 2009 –
Dec 2012 **Doctor of Engineering Candidate (equivalent PhD)**
University of Luebeck, Germany, Institute for Biomedical Optics
(expected) *Thesis title: Optical Coherence Tomography Imaging of Mammalian Alveolar Structure and Function*
- 2008 **Double Diploma in Mechanical Engineering (equivalent M.Sc.)**
Technical University of Munich, Germany & Ecole Centrale Paris, France
Focus Area: Medical Engineering and Systematic Product Development

ACADEMIC RESEARCH EXPERIENCE

- Since 2009 **Graduate Research Assistant, Wellman Center for Photomedicine**
Harvard Medical School & Massachusetts General Hospital, Boston, Massachusetts, USA
- Conducted pre-clinical studies on alveolar movement during mechanical ventilation
 - Evaluated the capabilities of optical technologies *versus* histology and micro-CT
 - Developed ray-trace models to investigate artifacts in optical images of pulmonary alveoli
 - Published in peer-reviewed journal and presented at numerous international conferences
 - Obtained invitation to speak at 2011 International Pulmonary Imaging Workshop, UPenn

INDUSTRY EXPERIENCE

- 2008
(10 months) **Intern, Medical Gases R&D**
Air Liquide, Les-Loges-en-Josas, France
- Led the establishment of an internal device testing laboratory
 - Analysed medical aerosol deposition as a function of the nebulizer and carrier gas
- 2007
(3 months) **Intern, Process Control R&D**
Air Liquide, Les-Loges-en-Josas, France
- Coordinated with subcontractors to gain approval for medical device testing
- 2006 – 07
(11 months) **Student Employee, Patent Classification**
European Patent Office, Munich, Germany
- 2006
(3 months) **Intern, Automotive Products, Brake Production**
BOSCH, Suzhou, China

LANGUAGES

German Native
French Fluent
English Fluent

COMPUTER SKILLS

Programming Matlab (good knowledge), Simulink, C/C++ (basics)
CAD Catia (basics)

INTERESTS

Sports, Outdoors, Travel