

Curriculum Vitae. Matthew S. Fox, B.Sc.

Imaging Research Laboratories. Robarts Research Institute. London. Ontario. Canada.
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Education

- **Present: Reclassification, Ph.D. (Medical Physics Candidate).** University of Western Ontario. London, Ontario. Canada. Thesis: “*Hyperpolarized Noble Gas Magnetic Resonance Imaging of Inflammation in Rat Lungs.*”
- **2006 – 2008: M.Sc. (Medical Physics Candidate).** University of Western Ontario. London, Ontario. Canada. Thesis: “*Dynamic Magnetic Resonance Spectroscopy of Inflammation in Rat Lungs using Hyperpolarized ¹²⁹Xe.*”
- **2006 - B.Sc. (Physics with major in Computer Science).** University of Western Ontario. London, Ontario. Canada. Theses: “*Design and Characterization of a low field NMR spectroscopy magnet.*” & “*Investigation into feasibility of using derelict computer towers for use in parallel processing clusters.*”
- **2002 - O.S.S.D. St. Christophers Secondary.** Sarnia, Ontario, Canada.

Research and Professional Experience

1. *May, 2005 – September, 2005.* **Summer Student Researcher** in Magnetic Resonance Imaging using low field systems. Robarts Research Institute. London, Ontario. Canada.
2. *September 2005 – April 2006.* **Physics Thesis:** “*Design and Characterization of a low field NMR spectroscopy magnet.*” University of Western Ontario. London, Ontario. Canada.
3. *September 2005 - April 2006.* **Computer Science Thesis:** “*Investigation into feasibility of using derelict computer towers for use in parallel processing clusters.*” University of Western Ontario. London, Ontario. Canada.
4. *May, 2006 – September, 2006.* **Summer Student Researcher** in Magnetic Resonance Imaging using low field systems. Robarts Research Institute. London, Ontario. Canada.
5. *September 2006 – January 2007.* Introductory Physics **Lab Teaching Assistant.** University of Western Ontario. London, Ontario, Canada.
6. *January 2007 – April 2007.* Introductory Physics **Course Teaching Assistant.** University of Western Ontario. London, Ontario, Canada.
7. *September 2007 – January 2008.* Senior Physics **Lab Teaching Assistant.** University of Western Ontario. London, Ontario, Canada.
8. *September 2007 – January 2008.* Physics for the Life Sciences **Tutor.** University of Western Ontario. London, Ontario, Canada.
9. *September 2007- April 2008.* **Supervised** 4th Year Medical Biophysics Thesis Course Student (Katie Creber). University of Western Ontario. London, Ontario, Canada.
10. *January 2008 – April 2008.* Intermediate Physics **Lab Teaching Assistant.** University of Western Ontario. London, Ontario, Canada.

11. *January 2008 – April 2008.* **Supervised** 3rd Year Medical Biophysics Student in 6 week component of General Biophysics Laboratory Course (Victoria Maxwell). University of Western Ontario. London, Ontario, Canada.
12. *September 2008 – December 2008.* Physics for the Life Sciences **Teaching Assistant**. University of Western Ontario. London, Ontario, Canada.
13. *January 2009 – April 2009.* Physics for the Life Sciences **Teaching Assistant**. University of Western Ontario. London, Ontario, Canada.
14. *April 2008 - April 2009.* **Research Assistant**, Hyperpolarized Lung Imaging Laboratory. Robarts Research Institute. University of Western Ontario. London, Ontario, Canada.
15. *September 2009 – December 2009.* Physics for the Life Sciences **Teaching Assistant**. University of Western Ontario. London, Ontario, Canada.

Honors and Awards:

1. Lambton County Real Estate Scholarship (Awarded by the Lambton County Real Estate Board for pursuing higher education). Sarnia, Ontario. Canada. September **2002**.
2. UWO Entry Scholarship. University of Western Ontario. London, Ontario. Canada. September **2002**.
3. Bayer/Lanxess Scholarship (For maintaining Honours status annually at university level). London, Ontario. Canada. September **2003** – September **2006**.
4. Dean's Honour List. University of Western Ontario. London, Ontario. Canada. June **2005**.
5. University of Western Ontario Graduate Stipend. University of Western Ontario. London, Ontario. Canada. September **2006**.
6. University of Western Ontario Graduate Stipend. University of Western Ontario. London, Ontario. Canada. September **2007**.
7. University of Western Ontario Graduate Stipend. University of Western Ontario. London, Ontario. Canada. September **2008**.
8. University of Western Ontario Graduate Stipend. University of Western Ontario. London, Ontario. Canada. September **2009**.

Publications:

Refereed Disclosures

Published Research

1. W. Dominguez, J Parra-Robles, **M. Fox**, W. B. Handler, B. A. Chronik, G. E. Santyr. "Variable Field Strength System for Hyperpolarized Noble Gas MR Imaging of Rodent Lungs." MR Engineering July **2007**.

Publications in Review

1. R Kraayvanger, Chris Bidinosti, W. Dominguez, J Parra-Robles , **M. Fox**, Wilfred Lam, G. E. Santyr. “*Quantification of Alveolar Oxygen Partial Pressure in Rat Lungs Using Spin-Spin Relaxation Times of Hyperpolarized ^3He and ^{129}Xe at Low Magnetic Field Strength.*” *Magnetic Resonance in Medicine* July 2009.

Oral Presentations

1. **M. Fox**, A. Ouriadov, L. McCaig, R. Kraayvanger, R. Veldhuizen, G.E. Santyr. “*Hyperpolarized Magnetic Resonance Imaging of a Gastric Aspiration Model of Acute Lung Injury in the Rat Lung.*” Proceedings, Future of Quantitative and Functional Lung Imaging – Iowa **2008**.

Poster Presentations

1. **M. Fox**, A. Ouriadov, L. McCaig, R. Kraayvanger, R. Veldhuizen, G.E. Santyr. “*Hyperpolarized Magnetic Resonance Imaging of a Gastric Aspiration Model of Acute Lung Injury in the Rat Lung.*” Proceedings, American Thoracic Society – San Diego **2009**.
2. Jian-xiong Wang, Jeffery A. Stainsby, Alexei Ouriadov, **Matthew Fox**, Giles Santyr. “*T2* Mapping of Hyperpolarized ^3He in the Rat Lung using 3D Cones Imaging Strategy.*” Proceedings, International Society for Magnetic Resonance in Medicine – Hawaii **2009**.
3. **M. Fox**, I. Welch, D. Hobson, D. McCormack, G.E. Santyr. “*A Novel Technique for Non-Invasive Longitudinal Studies of Rat Lungs using Hyperpolarized Noble Gas Magnetic Resonance Imaging.*” Proceedings, American Thoracic Society **2008**.
4. W. Dominguez, **M. Fox**, J Parra-Robles, W.B. Handler, B.A. Chronik, G. Santyr. “*Variable Field Strength MR System for Hyperpolarized Noble Gas Imaging of Rodent Lungs.*” Proceedings, International Society for Magnetic Resonance in Medicine **2006**.

Non-Refereed Disclosures

Poster Presentations

1. **M. Fox**, J Parra-Robles, D. McCormack, G. Santyr. “*Dynamic MR Spectroscopy using ^{129}Xe to Characterize Rodent Models of Lung Inflammation.*” London Imaging Discovery **2007**.
2. **M. Fox**, J Parra-Robles, W. Lam, A. Ouriadov, W. Dominguez, R. Akhavan, P. Xu, R. Kraayvanger, G. Santyr. “*Magnetic Resonance Imaging of Lung Inflammation using Hyperpolarized ^{129}Xe .*” Robarts Research Day **2007**.
3. **M. Fox**, I. Welch, D. Hobson, D. McCormack, G.E. Santyr. “*A Novel Technique for Non-Invasive Longitudinal Studies of Rat Lungs using Hyperpolarized Noble Gas Magnetic Resonance Imaging.*” London Imaging Discovery **2008**.