

John J. Rhoden

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EDUCATION

- | | |
|---|----------------|
| Massachusetts Institute of Technology (Cambridge, MA)
Ph.D. Candidate, Chemical Engineering | 2007 - Present |
| North Carolina State University (Raleigh, NC)
B.S., Chemical Engineering | 2003 - 2007 |
| <ul style="list-style-type: none">• Minors: Spanish, Biotechnology | |

RESEARCH EXPERIENCE

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| Massachusetts Institute of Technology (Cambridge, MA)
Graduate Research Assistant | 2008 - Present |
| <ul style="list-style-type: none">• Advisor: Prof. K. Dane Wittrup• Thesis: Microdistribution of monoclonal antibodies in solid tumors• Developed novel method for unbiased quantitation of antibody and antigen distribution in an entire tumor cross section | |
| North Carolina State University (Raleigh, NC)
Undergraduate Research Assistant | 2004 - 2007 |
| <ul style="list-style-type: none">• Advisor: Prof. Jason Haugh• Quantitative characterization of phosphoinositide 3-kinase activity in response to cell migration and spreading <i>in vitro</i> through the use of total internal reflection fluorescence microscopy | |
| Duke University (Durham, NC)
Research Assistant | Summer 2003 |
| <ul style="list-style-type: none">• Advisor: Prof. Morton Friedman• Developed protocol for silver nitrate staining of porcine aortic endothelium for characterization of cell morphology as a function of hemodynamic microenvironment | |

AWARDS & HONORS

- Koch Institute for Integrative Cancer Research Graduate Student Fellowship, 2011
- MIT Presidential Graduate Fellowship, 2007
- National Science Foundation Graduate Research Fellowship, 2007
- Tau Beta Pi National Engineering Honor Society
- Thomas J. Watson Scholarship, 2003
- N.C. State University Park Scholarship, 2003

TEACHING & SUPERVISORY EXPERIENCE

Massachusetts Institute of Technology (Cambridge, MA)

Teaching Assistant: Introduction to Chemical Engineering

09/2009-12/2010

- Prepared course materials, held office hours, and graded exams

Supervision of undergraduate research projects

Yap Jun-Liang (07/2011-present)

- Engineering of trisppecific anti-carcinoembryonic antigen antibody-fibronectin fusion proteins

Lauren Garcia-Spite (06/2010-present)

- Optimization of production and purification of bispecific antibody production by transient transfection

Marylise Cieslewicz (01/2010-05/2010)

- Engineering of affinity series of a high-affinity anti-carcinoembryonic antigen antibody

PUBLICATIONS

Wittrup, K.D., Thurber, G.M., Schmidt, M.M., and **Rhoden, J.J.** Practical theoretic guidance for the design of tumor targeting agents. *Submitted*.

Orcutt, K.D., **Rhoden, J.J.**, Ruiz-Yi, B., Frangioni, J.V., and Wittrup, K.D. Effect of small molecule binding affinity on tumor uptake *in vivo*. *Submitted*.

Rhoden, J.J. and Wittrup, K.D. Dose dependence of intratumoral perivascular distribution of monoclonal antibodies. *Journal of Pharmaceutical Sciences*, available online ahead of print at 10.1002/jps.22801

Rhoden, J.J. and Wittrup, K.D. Effects of antibody dose and affinity on penetration into solid tumors (Poster). Molecular Medicine Triconference 2011, San Francisco CA.

Weiger, M.C., Wang, C.-C., Krajcovic, M., **Rhoden, J.J.**, and Haugh, J.M (2009). Spontaneous phosphoinositide 3-kinase signaling dynamics drive spreading and random migration of fibroblasts. *Journal of Cell Science*, **122**: 313-323