

# Nicholas T. Peters - Curriculum Vitae

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Iowa State University  
Plant Pathology and Microbiology Department  
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## Academic Summary:

2016-current

Assistant Professor of Plant Pathology and Microbiology, Iowa State University,  
Ames, Iowa

2010-2015

Postdoctoral Fellow in Microbiology, Harvard Medical School, Boston, Massachusetts  
Focus: "Understanding the molecular mechanisms of cell division in *E. coli*"  
Postdoctoral Advisor: Thomas G. Bernhardt

2003-2009

Ph.D in Biology, University of Utah, Salt Lake City, Utah  
Dissertation Title: "Microtubule function during early development in *S. compressa*"  
Dissertation Advisor: Darryl L. Kropf

2001-2003

MS in Molecular Biology, Miami University, Oxford, Ohio  
Thesis Title: "RNA editing and regulation of *Drosophila 4f-rnp* expression by *sas-10*  
antisense read-through mRNA transcripts"  
Thesis Advisor: Jack C. Vaughn

1997-2001

BA in Zoology, Miami University, Oxford, Ohio

## Academic and Professional Honors:

2016-2017 SoTL Scholars Program, Iowa State University

2012-2014 NRSA Fellowship (Ruth L. Kirschstein National Research Service Award, F32  
Fellowship): Harvard Medical School

2010 G. Richard Riser Award (Top Ph.D. Thesis in Biology for 2009-2010):  
University of Utah

2009 IRES Fellowship (International Research Experience for Students  
Fellowship Award): Station Biologique de Roscoff, France

## Teaching:

2016-current

Lecturer for Microbiology 201 and Plant Pathology 408/508: Iowa State University

## Peer-Reviewed Publications: (undergraduate authors indicated by underlines, co-first author publications indicated by †)

1. **Peters NT**<sup>†</sup>, Morlot C<sup>†</sup>, Yang DC, Uehara T, Vernet T, Bernhardt TG. Structure-function analysis of the LytM domain of EnvC, an activator of cell wall remodeling at the *Escherichia coli* division site. Mol Microbiol. 2013 Aug;89(4):690-701. doi: 10.1111/mmi.12304. Epub 2013 Jul 23. PMID:23796240

2. Green JJ, Cordero DE, **Peters NT**, Logan KO, Kropf DL. Dynamic microtubules and endomembrane cycling contribute to polarity establishment and early development of Ectocarpus mitospores. Protoplasma. 2013 Oct;250(5):1035-43. doi: 10.1007/s00709-012-0476-5. Epub 2013 Jan 16. PMID:23322087

3. Arun A<sup>†</sup>, **Peters NT**<sup>†</sup>, Scornet D, Peters AF, Mark Cock J, Coelho SM. Non-cell autonomous regulation of life cycle transitions in the model brown alga Ectocarpus. New Phytol. 2013 Jan; 197(2):503-10. doi: 10.1111/nph.12007. Epub 2012 Oct 29. PMID:23106314

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4. Yang DC, **Peters NT**, Parzych KR, Uehara T, Markovski M, Bernhardt TG. An ATP-binding cassette transporter-like complex governs cell-wall hydrolysis at the bacterial cytokinetic ring. *Proc Natl Acad Sci U S A*. 2011 Nov 8;108(45):E1052-60. PMID:22006326
5. **Peters NT**, Dinh T, Bernhardt TG. A fail-safe mechanism in the septal ring assembly pathway generated by the sequential recruitment of cell separation amidases and their activators. *J Bacteriol*. 2011 Sep; 193(18):4973-83. PMID:21764913
6. **Peters NT**, Kropf DL. Asymmetric microtubule arrays organize the endoplasmic reticulum during polarity establishment in the brown alga *Silvetia compressa*. *Cytoskeleton*. 2010 (67)2: 102-111. (selected for "Cover Image") PMID:20169534
7. **Peters NT**, Miller AC, Kropf DL. Localization and function of Kinesin-5-like proteins during assembly and maintenance of mitotic spindles in *Silvetia compressa*. *BMC Research Notes* 2009 June, 2:106. PMID: 19527496
8. **Peters NT**, Pol SU, Kropf DL. Phospholipid signaling during stramenopile development. *Plant Signaling & Behavior* 3:6, 1-3; June 2008. PMID:19704578
9. Bisgrove SR, Lee YR, Liu B, **Peters NT**, Kropf DL. The microtubule plus-end binding protein EB1 functions in root responses to touch and gravity signals in Arabidopsis. *Plant Cell*. 2008 Feb; 20(2): 396-410. PMID:17967797
10. **Peters NT**, Logan KO, Miller AC, Kropf DL. Phospholipase D signaling regulates microtubule organization in the fucoid alga *Silvetia compressa*. *Plant Cell Physiol*. 2007 Dec; 48(12):1764-74. PMID: 17967797
11. **Peters NT**, Kropf DL. Kinesin-5 motors are required for organization of spindle microtubules in *Silvetia compressa* zygotes. *BMC Plant Biol*. 2006 Aug 31; 6:19. (selected for "Image Of The Month") PMID: 16945151
12. **Peters NT**, Rohrbach JA, Zalewski BA, Byrkett CM, Vaughn JC. RNA editing and regulation of *Drosophila 4f-rnp* expression by *sas-10* antisense readthrough mRNA transcript. *RNA* 2003 9: 698-71. PMID: 12756328

### Peer-Reviewed Technical Manuscripts:

1. Coelho SM, Scornet D, Rousvoal S, **Peters NT**, Darteville L, Peters AF, Cock JM. Immunostaining of Ectocarpus cells. *Cold Spring Harb Protoc*. 2012 Mar 1;2012(3):369-72. PMID:22383639
2. Coelho SM, Scornet D, Rousvoal S, **Peters NT**, Darteville L, Peters AF, Cock JM. Extraction of high-quality genomic DNA from Ectocarpus. *Cold Spring Harb Protoc*. 2012 Mar 1;2012(3):365-8. PMID:22383638
3. Coelho SM, Scornet D, Rousvoal S, **Peters NT**, Darteville L, Peters AF, Cock JM. Isolation and regeneration of protoplasts from Ectocarpus. *Cold Spring Harb Protoc*. 2012 Mar 1;2012(3):361-4. PMID:22383637
4. Coelho SM, Scornet D, Rousvoal S, **Peters NT**, Darteville L, Peters AF, Cock JM. Genetic crosses between Ectocarpus strains. *Cold Spring Harb Protoc*. 2012 Feb 1;2012(2):262-5. PMID: 22301663
5. Coelho SM, Scornet D, Rousvoal S, **Peters NT**, Darteville L, Peters AF, Cock JM. How to cultivate Ectocarpus. *Cold Spring Harb Protoc*. 2012 Feb 1;2012(2):258-61. PMID:22301662
6. Coelho SM, Scornet D, Rousvoal S, **Peters NT**, Darteville L, Peters AF, Cock JM. Ectocarpus: a model organism for the brown algae. *Cold Spring Harb Protoc*. 2012 Feb 1;2012(2):193-8. PMID:22301644