

BIOGRAPHICAL SKETCH

Provide the following information for the key personnel and other significant contributors in the order listed on Form Page 2.
Follow this format for each person. **DO NOT EXCEED FOUR PAGES.**

NAME Andrew C Tolonen		POSITION TITLE Postdoctoral Fellow	
eRA COMMONS USER NAME tolonen			
EDUCATION/TRAINING (Begin with baccalaureate or other initial professional education, such as nursing, and include postdoctoral training.)			
INSTITUTION AND LOCATION	DEGREE (if applicable)	YEAR(s)	FIELD OF STUDY
Dartmouth College, Hanover NH 03755	BA	1998	Biology
MIT and WHOI, Cambridge MA USA 02138	PhD	2005	Microbial Genomics
Institut Pasteur, Paris France	Postdoc	2006	Microbial Genomics
Harvard Medical School, Boston MA USA 02115	Postdoc	2007-present	Microbial Genomics

NOTE: The Biographical Sketch may not exceed four pages. Follow the formats and instructions on the attached sample.

A. Positions and Honors. List in chronological order previous positions, concluding with your present position. List any honors. Include present membership on any Federal Government public advisory committee.

1996-1997 NSF REU Fellowship, Dartmouth College
 1998 BA with High Honors in Biology, Dartmouth College
 2001-2002 Merck Fellow in Biological Informatics, MIT
 2003-2005 NSF Graduate Fellow, MIT
 2006 Chateaubriand Fellow (Ambassade de France), Institut Pasteur
 2007-present Research Fellow, Harvard Medical School
 2008-2010 Sponsored Research Award, Qteros Inc

B. Selected peer-reviewed publications (in chronological order). Do not include publications submitted or in preparation. For publicly available citations, URLs or PMC submission identification numbers may accompany the full reference. Note copies of these publications are no longer accepted as appendix material.

Tolonen, AC, Albeau DF, Corbett JF, Handley H, Henson C, Malik P (2002). Optimized *in situ* construction of oligomers on an array surface. *Nucleic Acids Research* 30 (20).

Lee SS, Kennedy S, **Tolonen AC**, Ruvkun G (2003). DAF-16 target genes that control *C. elegans* life-span and metabolism. *Science* 300 (5619): 644-647.

Rocap G, Larimer FW, Lamerdin J, Malfatti S, Chain P, Ahlgren NA, Arellano A, Coleman M, Hauser L, Hess WR, Johnson ZI, Land M, Lindell D, Post AF, Regala W, Shah M, Shaw SL, Steglich C, Sullivan MB, Ting CS, **Tolonen A**, Webb EA, Zinser ER, Chisholm SW (2003). Genome divergence in two *Prochlorococcus* ecotypes reflects oceanic niche differentiation. *Nature* 424 (6952): 1042-1047.

Lindell D, Sullivan MB, Johnson ZI, **Tolonen AC**, Rohwer F, and Chisholm SW (2003). Transfer of photosynthetic genes to and from *Prochlorococcus* viruses. 2004. *Proceedings of the National Academy of Science, USA*. (101): 11013-11018.

Tolonen AC, Aach J, Lindell D, Johnson ZI, Rector T, Steen R, Church GM, Chisholm SW (2006). Global gene expression of *Prochlorococcus* ecotypes in response to changes in nitrogen availability. *Molecular Systems Biology* (Oct 2006 doi:10.1038).

Tolonen AC, Liszt GB, Hess WR (2006). Genetic manipulation of *Prochlorococcus* MIT 9313: GFP expression in an RSF1010 plasmid and Tn5 transposition. *Applied and Environmental Microbiology*. 72(12): 7607-13.

Frangeul L, Quillardet P, Castets AM, Humbert JF, Matthijs HC, Cortez D, **Tolonen A**, Zhang CC, Gribaldo S, Kehr JC, Zilliges Y, Ziemert N, Becker S, Talla E, Latifi A, Billault A, Lepelletier A, Dittmann E, Bouchier C, de Marsac NT (2008). Highly plastic genome of *Microcystis aeruginosa* PCC 7806, a ubiquitous toxic freshwater cyanobacterium. *BMC Genomics* 9:274

Tolonen AC, Chilaka AC, Church GM (2009). Targeted gene inactivation in *Clostridium phytofermentans* shows that cellulose degradation requires the family 9 hydrolase Cphy3367. *Molecular Microbiology* 74(6):1300-13

C. Research Support. List selected ongoing or completed (during the last three years) research projects (federal and non-federal support). Begin with the projects that are most relevant to the research proposed in this application. Briefly indicate the overall goals of the projects and your role (e.g. PI, Co-Investigator, Consultant) in the research project. Do not list award amounts or percent effort in projects.

2008-2010 Sponsored Research Award from Qteros, Inc (www.qteros.com) to develop genetic methods and other tools to analyze the mechanisms of cellulosic ethanol formation by *Clostridium phytofermentans*