



**Referred Publications**

Note: Undergraduate student co-authors are indicated in boldface and underlining indicates high school faculty co-authors.

Aho, E.L., R. Urwin, **A.E. Batcheller**, **A.M. Holmgren**, **K. Havig**, **A.M. Kulakoski**, **E.E. Vomhof**, **N.S. Longfors**, **C.B. Erickson**, **Z. K. Anderson**, **J.M. Dawlaty**, and **J. J. Mueller**. 2005. Neisserial pilin genes display extensive interspecies diversity. *FEMS Microbiology Letters* **249**:327-334.

Touleman, M., E. Aho, and M. Virji. 2001. Expression of pathogen-like Opa adhesins in commensal *Neisseria*: genetic and functional analysis. *Cellular Microbiology* **3**:33-44.

Aho, E. L., **A.M. Keating**, and **S. M. McGillivray**. 1999. A comparative analysis of pilin genes from pathogenic and nonpathogenic *Neisseria* species. *Microbial Pathogenesis* **28**:81-88.

Aho E. L., **J. W. Botten**, **R. J. Hall**, **M. K. Larsen** and **J. K. Ness**. 1997. Characterization of a class II pilin expression locus in *Neisseria meningitidis*: evidence for increased diversity among pilin genes in pathogenic *Neisseria* species. *Infection and Immunity* **65**:2613-2620.

Aho, E. L. and L. P. Kelly. 1995. Identification of a glutathione peroxidase homolog in *Neisseria meningitidis*. *DNA Sequence: The Journal of Sequencing and Mapping* **6**:55-60.

Aho, E. L. , **A. S. Bohling**, **P. D. Jones** and **D. A. Piphio**. 1994. The molecular biology of neisserial pilin proteins. *North Dakota Academy of Science Proceedings* **48**:66.

Aho, E.L., J.A. Dempsey, M.M. Hobbs, D.G. Klapper, and J.G. Cannon. 1991. Characterization of the opa (class 5) gene family of *Neisseria meningitidis*. *Molecular Microbiology* **5**:1429-1437.

Aho, E.L. 1989. Molecular biology of class 5 outer membrane proteins of *Neisseria meningitidis*. (Mini-review). *Microbial Pathogenesis* **7**:249-253.

Kawula, T.H., E.L. Aho, D.S. Barritt, D.G. Klapper, and J.G. Cannon. 1988. Reversible phase variation of expression of *Neisseria meningitidis* class 5 outer membrane proteins and their relationship to gonococcal proteins II. *Infection and Immunity*. **56**:380-386.

Aho, E.L., and J.G. Cannon. 1988. Characterization of a silent pilin gene locus from *Neisseria meningitidis* strain FAM18. *Microbial Pathogenesis* **5**:391-398.

Woods, J.P., E.L. Aho, D.S. Barritt, J.R. Black, T.D. Connell, T.H. Kawula, S.M. Spinola, and J.G. Cannon. 1987. The H8 antigen of pathogenic *Neisseriae*. *Antonie van Leeuwenhoek* **53**:533-536.

Aho, E.L., G.L. Murphy, and J.G. Cannon. 1987. Distribution of specific DNA sequences among pathogenic and commensal *Neisseria* species. *Infection and Immunity*. **55**:1009-1013.

**Selected presentations** (undergraduate authors in bold)

Aho E.L., **A. Batcheller**, **A. Denault**, **H. Jordheim**, **R. Ramemden**, **Z. Aanderson**, **C. Erickson**, **K. Havig**, **A. Kulackoski**, **N. Longfors**, **E. Vomhof**. 2004. A comparative analysis of pilin-encoding genes from ten species of *Neisseria*. Poster presentation at the 14<sup>th</sup> International Neisseria Conference, Milwaukee, USA.

**Batcheller A.**, **A. Denault** (faculty advisor E. Aho). 2003. Identification of two tandemly arranged pilin-like genes in *Neisseria elongata*. Oral presentation at the National Conference on Undergraduate Research, Salt Lake City, USA.

Toleman M., D. Evans, E. Aho, and M. Virji. 2000. Structural and functional analyses of commensal Opa proteins. Poster presentation at the 12<sup>th</sup> International Neisseria Conference, Galveston, USA.

Aho E.L., **A.M. Keating**, and **S.M. McGillivray**. 1998. Pilin genes in nonpathogenic *Neisseria* species. Poster presentation at the 11<sup>th</sup> International Neisseria Conference, Nice, France.

Hadfield A., M. Toleman, L. Serieno, E. Aho, and M. Virji. 1998. Homology modeling of class I and class II pilins of *Neisseria meningitidis* as a basis for 3D peptide design. Poster presentation at the 11<sup>th</sup> International Neisseria Conference, Nice, France.

Toleman M., E. Aho, J. Griffith, and M. Virji. 1998. Mechanisms of mucosal colonization by commensal *Neisseriae* and structure/function relatedness of commensal and pathogenic neisserial surface ligands. Poster presentation at the 11<sup>th</sup> International Neisseria Conference, Nice, France.

Aho, E.L. 1998. Structural variations amongst neisserial pilins. Oral presentation at the Bristol Microbiology Forum, Bristol, England.

Aho, E.L. 1998. Comparative studies on class II pili and other surface components among pathogenic and commensal *Neisseria* species. Oral presentations at the University of Bristol and University of Southampton, England.

**Gustafson E.**, E. Aho, and P. Norrod. 1996. Activity of glutathione reductase in various species of *Neisseria*. Poster presentation at the meeting of the American Society for Microbiology, New Orleans, USA.

Aho E.L., **A. Bohling**, **P. Jones**, **D. Pipho**. 1994. The molecular biology of neisserial pilin proteins. Oral presentation at the North Dakota Academy of Science Meeting, Fargo, USA.

Connell T.D., J.D. Hobbs, L.D. Whicker, E.L. Aho, and J.G. Cannon. 1990. Antigenic variation of P.II and class 5 proteins. Oral presentation at the 7<sup>th</sup> International Neisseria Conference, Berlin, Germany.

**Grants and awards****Teaching awards:**

Flaat Distinguished Teaching Award

Omicron Delta Kappa Faculty Representative

**Research grants:**

Fuglestad-Torstveit Biology Endowment Research Award (2000-2001, 2002-2003, 2006-2007)

Wellcome Research Travel Grant (1998, funded sabbatical work at the University of Bristol, UK)

ELCA College Faculty Study Grant (1998)

Research Team Leader, Howard Hughes Medical Institute Undergraduate Biological Sciences Program Research Award (1994-1997)

National Science Foundation Research Planning Grant (1993-1994)

National Foundation for Infectious Diseases - Burroughs Wellcome Fund Young Investigator Matching Grant (1991)

Concordia College Centennial Scholar Grants (1991, 1992)

Council on Undergraduate Research Academic-Industrial Undergraduate Research Partnership Fellowship (1991) (stipend award to undergraduate associate for work with Dr. Aho)

Bush Foundation Faculty Scholar Award (1990)

National Science Foundation Graduate Fellowship (1985-1988)

University of North Carolina Alumni Graduate Fellowship (1984)

**Professional and community service activities**

MeritCare School of Clinical Laboratory Science Advisory Committee member (2006-present)

Hospital Ethics Committee member, Heartland Health System (1997-2001)

Tricollege Ethics Lectureship Planning Committee member and past chair (1994-2002)

Extramural evaluator for Tenure Review Committees (2001, 2006)  
(Trinity College, Virginia Commonwealth University)

Reviewer for the North Carolina Biotechnology Center (1999, 2000).

National Science Foundation review panel member for Instrumentation and Laboratory Improvement Grant proposals (1997, 1998).

Ad hoc reviewer, *Infection and Immunity*

### **Professional societies**

American Society for Microbiology

Council on Undergraduate Research (Biology Council)

### **Current teaching responsibilities**

Biology 222 Genetics and Molecular Biology

Biology 222L Genetics and Molecular Biology Laboratory

Biology 303 Biomedical Ethics

Biology 345 Molecular Biology

Biology 345L Molecular Biology Laboratory

Biology 407 Microbiology

Biology 407L Microbiology Laboratory

Biology 490 Directed Research