

## BIOGRAPHICAL SKETCH

### Volker Brendel

Professor, Department of Genetics, Development and Cell Biology and Department of Statistics  
2112 Molecular Biology Phone: 515 294 9884  
Iowa State University FAX: 515 294 6755  
Ames, IA 50011-3260 Email: vbrendel@iastate.edu

### Professional Preparation:

University of Kiel, Germany	Mathematics/Biology	1976-1979
University of Oxford, UK	Applied Statistics	M.Sc., 1981
The Weizmann Institute of Science, Israel	Life Sciences	Ph.D., 1986
Stanford University, USA	Bioinformatics	1987-1988

### Appointments:

July 1, 2002 – present	Bergdahl Professor of Bioinformatics	Iowa State University
2001 – 2002	Professor	Iowa State University
1998 – 2000	Associate Professor	Iowa State University
1995 – 1998 (part time)	Lecturer in Mathematics	Stanford University
1989 – 1998	Research Associate	Stanford University

### Recent publications closely related to the proposed project:

- (1) Duvick, J., Fu, A., Muppirala, U., Sabharwal, M., Wilkerson, M.D., Lawrence, C.J., Lushbough, C. & Brendel, V. (2008) PlantGDB: a resource for comparative plant genomics. *Nucl. Acids Res.* **36**, D959-D965.
- (2) Schlueter, S.D., Wilkerson, M.D., Dong, Q. & Brendel, V. (2006) xGDB: open-source computational infrastructure for the integrated evaluation and analysis of genome features. *Genome Biol.* **7**, R111.
- (3) Wang, B.-B. & Brendel, V. (2006) Genome-wide comparative analysis of alternative splicing in plants. *Proc. Natl. Acad. Sci. USA* **103**, 7175-7180.
- (4) Pan, X., Stein, L. & Brendel, V. (2005) SynBrowse: A synteny browser for comparative sequence analysis. *Bioinformatics* **21**, 3461-3468.
- (5) Wang, B.-B. & Brendel, V. (2004) The ASRG database: identification and survey of *Arabidopsis thaliana* genes involved in pre-mRNA splicing. *Genome Biol.* **5**, R102.

### Selected other significant publications:

- (1) Dong, Q., Wilkerson, M.D. & Brendel, V. (2007) *Tracemblem* - software for *in silico* chromosome walking in unassembled genomes. *BMC Bioinformatics* **8**, 151.
- (2) Schlueter, S.D., Wilkerson, M.D., Huala, E., Rhee, S.Y. & Brendel, V. (2005) Community-based gene structure annotation for the *Arabidopsis thaliana* genome. *Trends Plant Sci.* **10**, 9-14.
- (3) Brendel, V., Xing, L. & Zhu, W. (2004) Gene structure prediction from consensus spliced alignment of multiple ESTs matching the same genomic locus. *Bioinformatics* **20**, 1157-1169.
- (4) Kalyanaraman, A., Aluru, S., Kothari, S., & Brendel, V. (2003) Efficient clustering of large EST data sets on parallel computers. *Nucl. Acids Res.* **31**, 2963-2974.

- (5) Zhu, W. & Brendel, V. (2003) Identification, characterization, and molecular phylogeny of U12-dependent introns in the *Arabidopsis thaliana* genome. *Nucl. Acids Res.* **31**, 4561-4572.

**Synergistic activities:**

- (1) Member of the core faculty of the ISU Bioinformatics and Computational Biology program and Co-Director of the [NIH-NSF BBSI Summer Institute in Computational Systems Biology - Iowa State University](#)
- (2) ISU Teaching responsibilities for the bioinformatics graduate course BCB 568 (<http://gremlin1.gdcb.iastate.edu/~volker/teaching/bcb568.html>)
- (3) Member of the faculty of the ISU Interdepartmental Genetics graduate study program and member of the International Faculty of the [International Graduate School in Bioinformatics and Genome Research](#), Bielefeld University, Germany

**Collaborators (non-ISU):**

Alice Barkan (University of Oregon), Thomas Brutnell (Cornell University), Sarah Hake (USDA-PGEC, Albany CA), Eva Huala (Carnegie Institution, Stanford), David Jackson (Cold Spring Harbor Laboratory), Elizabeth Kellogg (University of Missouri), Stefan Kurtz (Universität Hamburg), Carol Lushbough (University of South Dakota), Todd Mockler (Oregon State University), Anireddy Reddy (Colorado State University), Seung Rhee (Carnegie Institution, Stanford), Torbert Rocheford (University of Illinois), Robert Schmidt (University of California, San Diego), Lincoln Stein (Cold Spring Harbor Laboratory), Virginia Walbot (Stanford University)

**Graduate and postdoctoral advisors:**

Edward Trifonov (University of Haifa, Israel), Samuel Karlin (Stanford University)

**Graduate students (10, including 3 current students):**

Liping Chen (Ph.D., current), Jianmin Feng (M.S., 2002), Hong Lu (Ph.D., current), Yuanbin Ru (Ph.D., current), Shannon Schlueter (Ph.D., 2006), Michael Sparks (Ph.D., 2007), Jonathan Usuka (Stanford University, Ph.D., 2001), Bing-Bing Wang (M.S., 2002; Ph.D., 2005), Matthew Wilkerson (Ph.D., 2007), Wei Zhu (Ph.D., 2003)

**Postdoctoral students (10, including 1 current student):**

Qunfeng Dong (2001-2002), Xiaowu Gai (1999-2001), Xiang Gao (2002), Wei Guo (2001-2003), Shailesh Lal (2000-2001), Carolyn Lawrence (2003-2005), Xiaokang Pan (2003-2006), Michael Sparks (2008, current), Matthew Wilkerson (2008), Liqun Xing (2000-2001)