

# Simon W.-L. Chan

University of California, Davis  
Section of Plant Biology  
1 Shields Ave.  
Davis, CA 95616  
(530) 754 9652  
srchan@ucdavis.edu

## Education and Research Experience

- July 2006- **University of California, Davis, Davis, CA**  
**Assistant Professor**
- 2002-2006 **University of California, Los Angeles, Los Angeles, CA**  
**Postdoctoral fellowship**  
Advisor: Dr. Steven E. Jacobsen
- 1996-2002 **University of California, San Francisco, San Francisco, CA**  
**Ph.D. in Cell Biology.**  
Advisor: Dr. Elizabeth H. Blackburn
- 1992-1995 **University of Auckland, Auckland, New Zealand**  
**Bachelor of Science (with Honours) in Biochemistry.**  
Advisor: Dr. Nigel P. Birch

## Awards

- 2006 American Society of Plant Biologists Early Career Award  
2004 UCLA Boyer-Parvin Postdoctoral Award  
2003-2006 Life Sciences Research Foundation Postdoctoral Fellowship (sponsored by the U.S. Department of Energy, Energy BioSciences division)  
1997-2002 Howard Hughes Medical Institute Predoctoral Fellowship

## Advanced Coursework

- 2003 QB3 Microarray Course at UC Santa Cruz (taught by Dr. Joseph Derisi and colleagues).

## Teaching Experience

- 2004 **University of California, Los Angeles, Los Angeles, CA**

**Guest Lecturer** in the undergraduate genetics course LS4 and in the undergraduate research course LS100

- 1999 **University of California, San Francisco**, San Francisco, CA  
**Scientist Volunteer** with the Science and Health Education Partnership (SEP) between UCSF and the San Francisco Unified School District.
- 1998 **University of California, San Francisco**, San Francisco, CA  
**Teaching Assistant** in the graduate course “Bioregulatory Mechanisms”.

## Publications

**Chan, S.W.L.**, Zhang, X., Bernatavichute, Y.V. and Jacobsen, S.E.  
Two-step recruitment of RNA-directed DNA methylation to tandem repeats.  
**PLoS Biology** 4, e363 (2006)

Peng, P., **Chan, S.W.L.**, Shah, G., and Jacobsen, S.E.  
Elevated outcrossing in *hothead* mutants.  
**Nature** 443, E8 (2006)

Zhang, X.\*, Yazaki, J.\*, Sundaresan, A\*., Cokus, S\*, **Chan, S.W.L.**, Chen, H., Henderson, I.R., Shinn, P., Pellegrini, M., Jacobsen, S.E. and Ecker, J.R.  
Genome-wide high-resolution mapping and functional analysis of DNA methylation in *Arabidopsis*.  
**Cell** 126, 1189-1201 (2006)

Li, C.F, Pontes, O., El-Shami, M., Henderson, I.R., Bernatavichute, Y.V., **Chan, S.W.L.**, Lagrange, T., Pikaard, C.S. and Jacobsen, S.E.  
An ARGONAUTE4-containing nuclear processing center co-localized with Cajal bodies in *Arabidopsis thaliana*.  
**Cell** 126, 93-106 (2006)

**Chan, S.W.L.**, Henderson, I.R., Zhang, X., Chien, J., Shah, G. and Jacobsen, S.E.  
RNAi, DRD1 and histone methylation actively target developmentally important non-CG DNA methylation in *Arabidopsis*.  
**PLoS Genetics** 2, e83 (2006)

**Chan, S.W.L.\***, Henderson, I.R.\* and Jacobsen, S.E.  
Gardening the genome: DNA methylation in *Arabidopsis thaliana*.  
**Nature Reviews Genetics** 6 351-360 (2005) [review article]

Mockler, T.C., **Chan, S.**, Sundaresan A., Chen, H., Jacobsen S.E. and Ecker, J.R.  
Applications of DNA tiling arrays for whole-genome analysis.  
**Genomics** 85 1-15 (2005) [review article]

Morris, K.V., **Chan, S.W.L.**, Jacobsen, S.E. and Looney, D.J.  
siRNA-induced transcriptional gene silencing in human cells.

**Science** 305, 1289-1292 (2004)

**Chan, S.W.L.**, Zilberman D., Xie, Z., Johansen, L.K., Carrington, J.C. and Jacobsen, S.E.

RNA silencing genes control *de novo* DNA methylation.

**Science** 303, 1336 (2004)

**Chan, S.R.W.L.** and Blackburn, E.H.

Telomeres and telomerase.

**Phil. Trans. R. Soc. Lond. B** 359, 109-121 (2004)

**Chan, S.W.L.** and Blackburn, E.H.

Telomerase and ATM/Tel1p protect telomeres from non-homologous end-joining.

**Molecular Cell** 11, 1379-1387 (2003).

**Chan, S.W.L.** and Blackburn, E.H.

New ways not to make ends meet.

**Oncogene** 21, 553-563 (2002) [review article].

**Chan, S.W.L.**, Chang, J., Prescott, J. and Blackburn, E.H.

Altering telomere structure allows telomerase to act in yeast lacking ATM kinases.

**Current Biology** 11, 1240-1250 (2001).

Blackburn, E.H., **Chan, S.**, Chang, J., Fulton, T.B., Krauskopf, A., McEachern, M., Prescott, J., Roy, J., Smith, C. and Wang, H.

Molecular manifestations and molecular determinants of telomere capping.

**Cold Spring Harbor Symposia on Quantitative Biology**, 65, 253-263 (2000)

\* denotes equal contribution

## Recent Presentations

Chan, S.W.L., Bernatavichute, Y.V., Zhang, X.Y. and Jacobsen, S.E.

Tandem repeats, siRNAs and DNA methylation in *Arabidopsis*. (oral presentation)

Sir Mark Oliphant Conference on Epigenetic Regulation in Disease and Development, in Canberra, Australia. December 2005

Chan, S.W.L., Zilberman, D and Jacobsen, S.E.

*De novo* methylation of transformed DNA mediated by RNA silencing. (poster presentation)

Keystone Symposium: Emerging Mechanisms in Epigenetic Regulation in Lake Tahoe, CA. January 2004

## References

Dr. Steven E. Jacobsen  
Professor of Molecular, Cellular and Developmental Biology  
University of California, Los Angeles  
P. O. Box 951606  
Los Angeles, CA 90095-1606  
[jacobsen@ucla.edu](mailto:jacobsen@ucla.edu)

Dr. Elizabeth H. Blackburn  
Professor of Biochemistry and Biophysics  
University of California, San Francisco  
Genentech Hall S312F  
600 16th St.  
San Francisco, CA 94107  
[telomer@itsa.ucsf.edu](mailto:telomer@itsa.ucsf.edu)

Dr. Joseph Ecker  
Professor  
The Salk Institute for Biological Studies  
10010 North Torrey Pines Rd  
La Jolla, CA 92037  
[ecker@salk.edu](mailto:ecker@salk.edu)

## **Memberships**

American Society of Plant Biologists  
American Society for Cell Biology