

Simon W.-L. Chan

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Department of Plant Biology
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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

- 2010 Basil O'Connor Starter Scholar Award, March of Dimes
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

- 2008 National Academies Education Fellow in the Life Sciences (attended The National Academies Summer Institute on Undergraduate Education in Biology).
- 2003 QB3 Microarray Course at UC Santa Cruz (taught by Dr. Joseph Derisi and colleagues).

Publications

The rapidly evolving centromere-specific histone has stringent functional requirements in *Arabidopsis thaliana*

Ravi, M., Kwong, P.N., Menorca, R.M.G., Valencia, J.T., Ramahi, J.S., Stewart, J.L., Tran, R.K., Sundaresan, V., Comai, L. and **Chan, S.W.L.**

Genetics in press

Ravi, M. and **Chan, S.W.L.**

Haploid plants produced by centromere-mediated genome elimination

Nature 464, 615-618 (2010)

Henderson, I.R., **Chan, S.R.**, Cao, X., Johnson L. and Jacobsen S.E.

Accurate sodium bisulfite sequencing in plants

Epigenetics 5, 47-49 (2010)

Chan, S.W.L.

Inputs and outputs for chromatin-targeted RNAi.

Trends in Plant Sciences 7, 383-389 (2008)

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 *hthhead* 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

Patents

Provisional patent application "Generation of haploid plants and improved plant breeding", filed 10/6/09 in the U.S. Inventors: Ravi Maruthachalam and Simon Chan

Recent Presentations

Invited speaker, XIII National Congress of Plant Molecular Biology and 6th Symposium
Mexico-USA
November 2009

Invited seminar, Temasek Life Sciences Laboratory, Singapore
June 2009

Memberships

American Society for Cell Biology