Stanford

Dominique Bergmann

Shirley R. and Leonard W. Ely, Jr. Professor of the School of Humanities and Sciences

Biology

Curriculum Vitae available Online

Bio

ACADEMIC APPOINTMENTS

- Professor, Biology
- Member, Bio-X
- Member, Stanford Cancer Institute

ADMINISTRATIVE APPOINTMENTS

- Associate Member, Institute for Stem Cell Biology and Regenerative Medicine, Stanford School of Medicine, (2011- present)
- Adjunct Staff Member, Carnegie Institution for Science, Dept. of Plant Biology, (2011-2020)

PROFESSIONAL EDUCATION

- PhD, University of Colorado, Boulder , Molecular Biology (2000)
- Postdoctoral, Carnegie Institution , Plant Development

LINKS

- Bergmann Lab: https://web.stanford.edu/group/bergmann/cgi-bin/bergmannlab/

Research & Scholarship

CURRENT RESEARCH AND SCHOLARLY INTERESTS

Generating the full complement of functional cell types requires coordinating the production of cells with the specification programs that distinguish one cell type from another. Asymmetric cell division, in which one cell divides to create daughter cells that differ in size, location, cellular components or fate, is extensively used in the development of animals. In development of the epidermis in the model plant Arabidopsis thaliana, the specification and distribution of stomatal guard cells also requires oriented cell divisions. By studying stomatal development, one can explore how cells choose to initiate asymmetric divisions, how cells establish an internal polarity that can be translated into an asymmetric cell division, and how cells interpret external cues to align their divisions relative to the polarity of the whole tissue. Moreover, approaching these questions in a plant system is likely to reveal new solutions to the problem of balancing the robust specification of cell types with the ability to change development in the face of injury or environmental change.

Teaching

COURSES

2023-24

- Genetics: BIO 82 (Win)

2022-23

- Genetics: BIO 82 (Win)

2021-22

- Genetics: BIO 82 (Win)

STANFORD ADVISEES

Doctoral Dissertation Reader (AC)

Zhainib Amir-Ugokwe, Willian Goudinho Viana, Lauren Lubeck, Rachel Ng, Omar Niagne, Anay Ram Reddy

Postdoctoral Faculty Sponsor

Alexis Lebecq

Doctoral Dissertation Advisor (AC)

Gabriel Amador, Siobhan Bridson, Joel Erberich, Hannah Fung, Dirk Spencer, Rachel Varnau, Macy Vollbrecht

Doctoral Dissertation Co-Advisor (AC)

Evan Saldivar

Undergraduate Major Advisor

Jay An

Doctoral (Program)

Joel Erberich, Hannah Fung, Dirk Spencer, Rachel Varnau, Macy Vollbrecht

GRADUATE AND FELLOWSHIP PROGRAM AFFILIATIONS

- Biology (School of Humanities and Sciences) (Phd Program)

Publications

PUBLICATIONS

- **Spatially resolved proteomics of the Arabidopsis stomatal lineage identifies polarity complexes for cell divisions and stomatal pores.** *Developmental cell*
  Wallner, E., Mair, A., Handler, D., McWhite, C., Xu, S., Dolan, L., Bergmann, D. C.
  2024

- **Pluripotency of a founding field: rebranding developmental biology.** *Development (Cambridge, England)*
  Rogers, C. D., Amemiya, C., Arur, S., Babonis, L., Barresi, M., Bartlett, M., Behringer, R., Benham-Pyle, B., Bergmann, D., Blackman, B., Brown, C. T., Browne, B., Camacho, et al
  2024; 151 (3)

- **A cell size threshold triggers commitment to stomatal fate in Arabidopsis.** *Science advances*
  Gong, Y., Dale, R., Fung, H. F., Amador, G. O., Smit, M. E., Bergmann, D. C.
  2023; 9 (38): eadf3497

- **Cortical polarity ensures its own asymmetric inheritance in the stomatal lineage to pattern the leaf surface.** *Science (New York, N.Y.)*
  Muroyama, A., Gong, Y., Hartman, K. S., Bergmann, D. C.
  2023; 381 (6653): 54-59

- **Targeting editing of tomatoSPEECHLESScis-regulatory regions generates plants with altered stomatal density in response to changing climate conditions.** *bioRxiv : the preprint server for biology*
  Nir, I., Budrys, A., Smoot, N. K., Erberich, J., Bergmann, D. C.
  2023

- **The stomatal fates: Understanding initiation and enforcement of stomatal cell fate transitions.** *Current opinion in plant biology*

Smit, M. E., Bergmann, D. C.
2023: 102449

- **Cell Fate Programming by Transcription Factors and Epigenetic Machinery in Stomatal Development.** *bioRxiv : the preprint server for biology*
  Liu, A., Mair, A., Matos, J. L., Vollbrecht, M., Xu, S., Bergmann, D. C.
  2023

- **Arabidopsis stomatal lineage cells establish bipolarity and segregate differential signaling capacity to regulate stem cell potential.** *Developmental cell*
  Wallner, E. S., Dolan, L., Bergmann, D. C.
  2023

- **Function follows form: How cell size is harnessed for developmental decisions.** *European journal of cell biology*
  Fung, H. F., Bergmann, D. C.
  2023; 102 (2): 151312

- **Extensive embryonic patterning without cellular differentiation primes the plant epidermis for efficient post-embryonic stomatal activities.** *Developmental cell*
  Smit, M. E., Vaten, A., Mair, A., Northover, C. A., Bergmann, D. C.
  2023

- **Opposite polarity programs regulate asymmetric subsidiary cell divisions in grasses.** *eLife*
  Zhang, D., Spiegelhalder, R. P., Abrash, E. B., Nunes, T. D., Hidalgo, I., Anleu Gil, M. X., Jesenofsky, B., Lindner, H., Bergmann, D. C., Raissig, M. T.
  2022; 11

- **Expanded roles and divergent regulation of FAMA in Brachypodium and Arabidopsis stomatal development.** *The Plant cell*
  McKown, K. H., Gil, M. X., Mair, A., Xu, S., Raissig, M. T., Bergmann, D. C.
  2022

- **Connected function of PRAF/RLD and GNOM in membrane trafficking controls intrinsic cell polarity in plants.** *Nature communications*
  Wang, L., Li, D., Yang, K., Guo, X., Bian, C., Nishimura, T., Le, J., Morita, M. T., Bergmann, D. C., Dong, J.
  1800; 13 (1): 7

- **Advances in enzyme-mediated proximity labeling and its potential for plant research.** *Plant physiology*
  Mair, A., Bergmann, D. C.
  2021

- **Vision, challenges and opportunities for a Plant Cell Atlas.** *eLife*
  Plant Cell Atlas Consortium, Jha, S. G., Borowsky, A. T., Cole, B. J., Fahlgren, N., Farmer, A., Huang, S. C., Karia, P., Libault, M., Provart, N. J., Rice, S. L., Saura-Sanchez, M., Agarwal, P., et al
  2021; 10

- **Arabidopsis stomatal polarity protein BASL mediates distinct processes before and after cell division to coordinate cell size and fate asymmetries.** *Development (Cambridge, England)*
  Gong, Y., Alassimone, J., Muroyama, A., Amador, G., Varnau, R., Liu, A., Bergmann, D. C.
  2021

- **Plant single-cell solutions for energy and the environment.** *Communications biology*
  Cole, B., Bergmann, D., Blaby-Haas, C. E., Blaby, I. K., Bouchard, K. E., Brady, S. M., Ciobanu, D., Coleman-Derr, D., Leiboff, S., Mortimer, J. C., Nobori, T., Rhee, S. Y., Schmutz, et al
  2021; 4 (1): 962

- **Transcriptional profiling reveals signatures of latent developmental potential in Arabidopsis stomatal lineage ground cells.** *Proceedings of the National Academy of Sciences of the United States of America*
  Ho, C. K., Bringmann, M., Oshima, Y., Mitsuda, N., Bergmann, D. C.
  2021; 118 (17)

- **Single-cell resolution of lineage trajectories in the Arabidopsis stomatal lineage and developing leaf.** *Developmental cell*
  Lopez-Anido, C. B., Vaten, A., Smoot, N. K., Sharma, N., Guo, V., Gong, Y., Anleu Gil, M. X., Weimer, A. K., Bergmann, D. C.
  2021; 56 (7): 1043

- **Tuning self-renewal in the Arabidopsis stomatal lineage by hormone and nutrient regulation of asymmetric cell division.** *eLife*

Gong, Y., Alassimone, J., Varnau, R., Sharma, N., Cheung, L. S., Bergmann, D. C.
2021; 10

- **How to build a crop plant: Defining the cis-regulatory landscape of maize.** *Cell*
  Liu, A., Bergmann, D. C.
  2021; 184 (11): 2804-2806
- **Evolution of polarity protein BASL and the capacity for stomatal lineage asymmetric divisions.** *Current biology : CB*
  Nir, I., Amador, G., Gong, Y., Smoot, N. K., Cai, L., Shohat, H., Bergmann, D. C.
  2021
- **Stomatal development in the grasses: lessons from models and crops (and crop models).** *The New phytologist*
  McKown, K. H., Bergmann, D. C.
  2020
- **Quantitative and dynamic cell polarity tracking in plant cells.** *The New phytologist*
  Gong, Y. n., Varnau, R. n., Wallner, E. S., Acharya, R. n., Bergmann, D. C., Cheung, L. S.
  2020
- **Opposing, Polarity-Driven Nuclear Migrations Underpin Asymmetric Divisions to Pattern Arabidopsis Stomata.** *Current biology : CB*
  Muroyama, A. n., Gong, Y. n., Bergmann, D. C.
  2020
- **The plant stomatal lineage a a glance** *JOURNAL OF CELL SCIENCE*
  Lee, L. R., Bergmann, D. C.
  2019; 132 (8)
- **SOL1 and SOL2 regulate fate transition and cell divisions in the Arabidopsis stomatal lineage** *DEVELOPMENT*
  Simmons, A. R., Davies, K. A., Wang, W., Liu, Z., Bergmann, D. C.
  2019; 146 (3)
- **Proximity labeling of protein complexes and cell type-specific organellar proteomes in Arabidopsis enabled by TurboID.** *eLife*
  Mair, A. n., Xu, S. L., Branon, T. C., Ting, A. Y., Bergmann, D. C.
  2019; 8
- **Stem-cell-ubiquitous genes spatiotemporally coordinate division through regulation of stem-cell-specific gene networks.** *Nature communications*
  Clark, N. M., Buckner, E. n., Fisher, A. P., Nelson, E. C., Nguyen, T. T., Simmons, A. R., de Luis Balaguer, M. A., Butler-Smith, T. n., Sheldon, P. J., Bergmann, D. C., Williams, C. M., Sozzani, R. n.
  2019; 10 (1): 5574
- **Plant Cell Polarity: Creating Diversity from Inside the Box.** *Annual review of cell and developmental biology*
  Muroyama, A. n., Bergmann, D. n.
  2019; 35: 309–36
- **Cell-type-specific transcriptome and histone modification dynamics during cellular reprogramming in the Arabidopsis stomatal lineage.** *Proceedings of the National Academy of Sciences of the United States of America*
  Lee, L. R., Wengier, D. L., Bergmann, D. C.
  2019
- **Taking Development to Three Dimensions** *DEVELOPMENTAL CELL*
  Bergmann, D. C.
  2018; 47 (6): 678-679
- **Modulation of Asymmetric Division Diversity through Cytokinin and SPEECHLESS Regulatory Interactions in the Arabidopsis Stomatal Lineage** *DEVELOPMENTAL CELL*
  Vaten, A., Soyars, C. L., Tarr, P. T., Nimchuk, Z. L., Bergmann, D. C.
  2018; 47 (1): 53-+
- **Modulation of Asymmetric Division Diversity through Cytokinin and SPEECHLESS Regulatory Interactions in the Arabidopsis Stomatal Lineage.** *Developmental cell*
  Vaten, A., Soyars, C. L., Tarr, P. T., Nimchuk, Z. L., Bergmann, D. C.

2018

- **Grass stomata.** *Current biology : CB*
  McKown, K. H., Bergmann, D. C.
  2018; 28 (15): R814–R816

- **Grass stomata** *CURRENT BIOLOGY*
  McKown, K. H., Bergmann, D. C.
  2018; 28 (15): R814-R816

- **Conservation and divergence of YODA MAPKKK function in regulation of grass epidermal patterning** *DEVELOPMENT*
  Abrash, E., Gil, M., Matos, J. L., Bergmann, D. C.
  2018; 145 (14)

- **Conservation and divergence of YODA MAPKKK function in regulation of grass epidermal patterning.** *Development (Cambridge, England)*
  Abrash, E., Anleu Gil, M. X., Matos, J. L., Bergmann, D. C.
  2018

- **Direct Control of SPEECHLESS by PIF4 in the High-Temperature Response of Stomatal Development** *CURRENT BIOLOGY*
  Lau, O., Song, Z., Zhou, Z., Davies, K. A., Chang, J., Yang, X., Wang, S., Lucyshyn, D., Tay, I., Wigge, P. A., Bergmann, D. C.
  2018; 28 (8): 1273-+

- **Dissection of MAPK signaling specificity through protein engineering in a developmental context** *BMC PLANT BIOLOGY*
  Wengier, D. L., Lampard, G. R., Bergmann, D. C.
  2018; 18: 60

- **Lineage- and stage-specific expressed CYCD7;1 coordinates the single symmetric division that creates stomatal guard cells** *DEVELOPMENT*
  Weimer, A. K., Matos, J. L., Sharma, N., Patell, F., Murray, J. H., Dewitte, W., Bergmann, D. C.
  2018; 145 (6)

- **Lineage- and stage-specific expressed CYCD7;1 coordinates the single symmetric division that creates stomatal guard cells.** *Development (Cambridge, England)*
  Weimer, A. K., Matos, J. L., Sharma, N., Patell, F., Murray, J. A., Dewitte, W., Bergmann, D. C.
  2018; 145 (6)

- **Disruption of stomatal lineage signaling or transcriptional regulators has differential effects on mesophyll development, but maintains coordination of gas exchange.** *The New phytologist*
  Dow, G. J., Berry, J. A., Bergmann, D. C.
  2017; 216 (1): 69-75

- **Think global, act local: Integrating polarities across developing organs**
  Bergmann, D., Rowe, M., Bringmann, M.
  ELSEVIER SCIENCE BV.2017: S4

- **A Celebration of Fred David Sack** *PLANT PHYSIOLOGY*
  Bergmann, D., Clare, D., Samuels, L., Kiss, J. Z.
  2017; 174 (2): 470-472

- **Tissue-wide Mechanical Forces Influence the Polarity of Stomatal Stem Cells in Arabidopsis** *CURRENT BIOLOGY*
  Bringmann, M., Bergmann, D. C.
  2017; 27 (6): 877-883

- **Mobile MUTE specifies subsidiary cells to build physiologically improved grass stomata** *SCIENCE*
  Raissig, M. T., Matos, J. L., Gil, M. X., Kornfeld, A., Bettadapur, A., Abrash, E., Allison, H. R., Badgley, G., Vogel, J. P., Berry, J. A., Bergmann, D. C.
  2017; 355 (6330): 1215-1218

- **Origin and function of stomata in the moss Physcomitrella patens.** *Nature plants*
  Chater, C. C., Caine, R. S., Tomek, M., Wallace, S., Kamisugi, Y., Cuming, A. C., Lang, D., MacAlister, C. A., Casson, S., Bergmann, D. C., Decker, E. L., Frank, W., Gray, et al
  2016; 2: 16179-?

- **Fine-scale dissection of the subdomains of polarity protein BASL in stomatal asymmetric cell division.** *Journal of experimental botany*
  Zhang, Y., Bergmann, D. C., Dong, J.
  2016; 67 (17): 5093-5103

- **Modulators of Stomatal Lineage Signal Transduction Alter Membrane Contact Sites and Reveal Specialization among ERECTA Kinases.** *Developmental cell*
  Ho, C. K., Paciorek, T., Abrash, E., Bergmann, D. C.
  2016; 38 (4): 345-357

- **Grasses use an alternatively wired bHLH transcription factor network to establish stomatal identity.** *Proceedings of the National Academy of Sciences of the United States of America*
  Raissig, M. T., Abrash, E., Bettadapur, A., Vogel, J. P., Bergmann, D. C.
  2016; 113 (29): 8326-8331

- **Arabidopsis CSLD5 Functions in Cell Plate Formation in a Cell Cycle-Dependent Manner.** *Plant cell*
  Gu, F., Bringmann, M., Combs, J. R., Yang, J., Bergmann, D. C., Nielsen, E.
  2016; 28 (7): 1722-1737

- **50 years of Arabidopsis research: highlights and future directions** *NEW PHYTOLOGIST*
  Provart, N. J., Alonso, J., Assmann, S. M., Bergmann, D., Brady, S. M., Brkljacic, J., Browse, J., Chapple, C., Colot, V., Cutler, S., Dangl, J., Ehrhardt, D., Friesner, et al
  2016; 209 (3): 921-944

- **Transcriptional control of cell fate in the stomatal lineage.** *Current opinion in plant biology*
  Simmons, A. R., Bergmann, D. C.
  2016; 29: 1-8

- **MOBE-ChIP: a large-scale chromatin immunoprecipitation assay for cell type-specific studies** *PLANT JOURNAL*
  Lau, O. S., Bergmann, D. C.
  2015; 84 (2): 443-450

- **Manipulation of mitogen-activated protein kinase kinase signaling in the Arabidopsis stomatal lineage reveals motifs that contribute to protein localization and signaling specificity (vol 26, pg 3358, 2014)** *PLANT CELL*
  Lampard, G. R., Wengier, D. L., Bergmann, D. C.
  2015; 27 (7): 2073-2074

- **Transcriptome Dynamics of the Stomatal Lineage: Birth, Amplification, and Termination of a Self-Renewing Population** *DEVELOPMENTAL CELL*
  Adrian, J., Chang, J., Ballenger, C. E., Bargmann, B. O., Alassimone, J., Davies, K. A., Lau, O. S., Matos, J. L., Hachez, C., Lanctot, A., Vaten, A., Birnbaum, K. D., Bergmann, et al
  2015; 33 (1): 107-118

- **Regulation of Guard Cell Formation by Integration of Transcriptional and Signaling Regulation** *PLANT CELL WALL PATTERNING AND CELL SHAPE*
  Ho, C., Bergmann, D. C., Fukuda, H.
  2015: 321-349

- **Dominique Bergmann: Passionate about plant polarity** *JOURNAL OF CELL BIOLOGY*
  Powell, K., Bergmann, D.
  2014; 207 (6): 680-681

- **Arabidopsis Reduces Growth Under Osmotic Stress by Decreasing SPEECHLESS Protein.** *Plant and cell physiology*
  Kumari, A., Jewaria, P. K., Bergmann, D. C., Kakimoto, T.
  2014; 55 (12): 2037-2046

- **Functional specialization of stomatal bHLHs through modification of DNA-binding and phosphoregulation potential** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*
  Davies, K. A., Bergmann, D. C.
  2014; 111 (43): 15585-15590

- **Irreversible fate commitment in the Arabidopsis stomatal lineage requires a FAMA and RETINOBLASTOMA-RELATED module** *ELIFE*
  Matos, J. L., Lau, O. S., Hachez, C., Cruz-Ramirez, A., Scheres, B., Bergmann, D. C.

2014; 3

- **Patterning and processes: how stomatal development defines physiological potential** *CURRENT OPINION IN PLANT BIOLOGY*
  Dow, G. J., Bergmann, D. C.
  2014; 21: 67-74

- **Patterning and processes: how stomatal development defines physiological potential.** *Current opinion in plant biology*
  Dow, G. J., Bergmann, D. C.
  2014; 21: 67-74

- **Direct roles of SPEECHLESS in the specification of stomatal self-renewing cells** *SCIENCE*
  Lau, O. S., Davies, K. A., Chang, J., Adrian, J., Rowe, M. H., Ballenger, C. E., Bergmann, D. C.
  2014; 345 (6204): 1605-1609

- **Direct roles of SPEECHLESS in the specification of stomatal self-renewing cells.** *Science*
  Lau, O. S., Davies, K. A., Chang, J., Adrian, J., Rowe, M. H., Ballenger, C. E., Bergmann, D. C.
  2014; 345 (6204): 1605-1609

- **Coordinating cell polarity: heading in the right direction?** *DEVELOPMENT*
  Axelrod, J. D., Bergmann, D. C.
  2014; 141 (17): 3298-3302

- **Coordinating cell polarity: heading in the right direction?** *Development (Cambridge, England)*
  Axelrod, J. D., Bergmann, D. C.
  2014; 141 (17): 3298-302

- **Manipulation of Mitogen-Activated Protein Kinase Kinase Signaling in the Arabidopsis Stomatal Lineage Reveals Motifs That Contribute to Protein Localization and Signaling Specificity** *PLANT CELL*
  Lampard, G. R., Wengier, D. L., Bergmann, D. C.
  2014; 26 (8): 3358-3371

- **Omics and modelling approaches for understanding regulation of asymmetric cell divisions in arabidopsis and other angiosperm plants** *ANNALS OF BOTANY*
  Kajala, K., Ramakrishna, P., Fisher, A., Bergmann, D. C., De Smet, I., Sozzani, R., Weijers, D., Brady, S. M.
  2014; 113 (7): 1083-1105

- **An integrated model of stomatal development and leaf physiology** *NEW PHYTOLOGIST*
  Dow, G. J., Bergmann, D. C., Berry, J. A.
  2014; 201 (4): 1218-1226

- **The physiological importance of developmental mechanisms that enforce proper stomatal spacing in Arabidopsis thaliana.** *The New phytologist*
  Dow, G. J., Berry, J. A., Bergmann, D. C.
  2014; 201 (4): 1205-17

- **An integrated model of stomatal development and leaf physiology.** *The New phytologist*
  Dow, G. J., Bergmann, D. C., Berry, J. A.
  2014; 201 (4): 1218-26

- **The physiological importance of developmental mechanisms that enforce proper stomatal spacing in Arabidopsis thaliana** *NEW PHYTOLOGIST*
  Dow, G. J., Berry, J. A., Bergmann, D. C.
  2014; 201 (4): 1205-1217

- **Convergence of stem cell behaviors and genetic regulation between animals and plants: insights from the Arabidopsis thaliana stomatal lineage.** *F1000prime reports*
  Matos, J. L., Bergmann, D. C.
  2014; 6: 53-?

- **A map of cell type-specific auxin responses** *MOLECULAR SYSTEMS BIOLOGY*
  Bargmann, B. O., Vanneste, S., Krouk, G., Nawy, T., Efroni, I., Shani, E., Choe, G., Friml, J., Bergmann, D. C., Estelle, M., Birnbaum, K. D.
  2013; 9

- **Mechanisms of stomatal development: an evolutionary view (vol 3, pg 11, 2013)** *EVODEVO*
  Vaten, A., Bergmann, D. C.
  2013; 4
- **Stomatal development: a plant's perspective on cell polarity, cell fate transitions and intercellular communication** *DEVELOPMENT*
  Lau, O. S., Bergmann, D. C.
  2012; 139 (20): 3683-3692
- **Mechanisms of stomatal development: an evolutionary view** *EVODEVO*
  Vaten, A., Bergmann, D. C.
  2012; 3
- **Brassinosteroid regulates stomatal development by GSK3-mediated inhibition of a MAPK pathway** *NATURE*
  Kim, T., Michniewicz, M., Bergmann, D. C., Wang, Z.
  2012; 482 (7385): 419-U1526
- **On fate and flexibility in stomatal development.** *Cold Spring Harbor symposia on quantitative biology*
  Wengier, D. L., Bergmann, D. C.
  2012; 77: 53-62
- **Generation of spatial patterns through cell polarity switching.** *Science*
  Robinson, S., Barbier de Reuille, P., Chan, J., Bergmann, D., Prusinkiewicz, P., Coen, E.
  2011; 333 (6048): 1436-1440
- **Generation of Spatial Patterns Through Cell Polarity Switching** *SCIENCE*
  Robinson, S., de Reuille, P. B., Chan, J., Bergmann, D., Prusinkiewicz, P., Coen, E.
  2011; 333 (6048): 1436-1440
- **Generation of Signaling Specificity in Arabidopsis by Spatially Restricted Buffering of Ligand-Receptor Interactions** *PLANT CELL*
  Abrash, E. B., Davies, K. A., Bergmann, D. C.
  2011; 23 (8): 2864-2879
- **Peptide Signaling in Plant Development** *CURRENT BIOLOGY*
  Katsir, L., Davies, K. A., Bergmann, D. C., Laux, T.
  2011; 21 (9): R356-R364
- **Differentiation of Arabidopsis Guard Cells: Analysis of the Networks Incorporating the Basic Helix-Loop-Helix Transcription Factor, FAMA** *PLANT PHYSIOLOGY*
  Hachez, C., Ohashi-Ito, K., Dong, J., Bergmann, D. C.
  2011; 155 (3): 1458-1472
- **Sequence and function of basic helix-loop-helix proteins required for stomatal development in Arabidopsis are deeply conserved in land plants** *EVOLUTION & DEVELOPMENT*
  MacAlister, C. A., Bergmann, D. C.
  2011; 13 (2): 182-192
- **The secret to life is being different: asymmetric divisions in plant development** *CURRENT OPINION IN PLANT BIOLOGY*
  Paciorek, T., Bergmann, D. C.
  2010; 13 (6): 661-669
- **Complex signals for simple cells: the expanding ranks of signals and receptors guiding stomatal development** *CURRENT OPINION IN PLANT BIOLOGY*
  Rowe, M. H., Bergmann, D. C.
  2010; 13 (5): 548-555
- **Asymmetry, fate and self-renewal in stomatal development**
  Bergmann, D. C.
  ACADEMIC PRESS INC ELSEVIER SCIENCE.2010: 426
- **MSP Domain-Containing Protein Reveals A New Level of Regulation of Stomatal Signaling in Arabidopsis**
  Paciorek, T., Abrash, E., Bergmann, D.

SPRINGER.2010: S149–S150

- **From molecule to model, from environment to evolution: an integrated view of growth and development** *CURRENT OPINION IN PLANT BIOLOGY*
  Bergmann, D. C., Fleming, A. J.
  2010; 13 (1): 1-4
- **Regional specification of stomatal production by the putative ligand CHALLAH** *DEVELOPMENT*
  Abrash, E. B., Bergmann, D. C.
  2010; 137 (3): 447-455
- **STOMATAL PATTERNING AND DEVELOPMENT** *PLANT DEVELOPMENT*
  Dong, J., Bergmann, D. C.
  2010; 91: 267-297
- **Plant asymmetric cell division regulators: pinch-hitting for PARs?** *F1000 biology reports*
  Metzinger, C. A., Bergmann, D. C.
  2010; 2
- **Novel and Expanded Roles for MAPK Signaling in Arabidopsis Stomatal Cell Fate Revealed by Cell Type-Specific Manipulations** *PLANT CELL*
  Lampard, G. R., Lukowitz, W., Ellis, B. E., Bergmann, D. C.
  2009; 21 (11): 3506-3517
- **Pattern and polarity in the plant epidermis**
  Bergmann, D., Dong, J., Lampard, G., Paciorek, M., MacAlister, C.
  ACADEMIC PRESS INC ELSEVIER SCIENCE.2009: 397
- **Orthologs of Arabidopsis thaliana stomatal bHLH genes and regulation of stomatal development in grasses** *DEVELOPMENT*
  Liu, T., Ohashi-Ito, K., Bergmann, D. C.
  2009; 136 (13): 2265-2276
- **BASL Controls Asymmetric Cell Division in Arabidopsis** *CELL*
  Dong, J., MacAlister, C. A., Bergmann, D. C.
  2009; 137 (7): 1320-1330
- **Asymmetric Cell Divisions: A View from Plant Development** *DEVELOPMENTAL CELL*
  Abrash, E. B., Bergmann, D. C.
  2009; 16 (6): 783-796
- **Asymmetry and pattern in the leaf epidermis** *Annual Meeting of the Society-for-Experimental-Biology*
  Bergmann, D., Dong, J., Lampard, G., MacAlister, C., Hachez, C., Rowe, M., Metzinger, C.
  ELSEVIER SCIENCE INC.2009: S176–S176
- **Arabidopsis Stomatal Initiation Is Controlled by MAPK-Mediated Regulation of the bHLH SPEECHLESS** *SCIENCE*
  Lampard, G. R., MacAlister, C. A., Bergmann, D. C.
  2008; 322 (5904): 1113-1116
- **2020 vision for biology: The role of plants in addressing grand challenges in biology** *MOLECULAR PLANT*
  Raikhel, N.
  2008; 1 (4): 561-563
- **Regulation of the Arabidopsis root vascular initial population by LONESOME HIGHWAY** *DEVELOPMENT*
  Ohashi-Ito, K., Bergmann, D. C.
  2007; 134 (16): 2959-2968
- **The secretory peptide gene EPF1 enforces the stomatal one-cell-spacing rule** *GENES & DEVELOPMENT*
  Hara, K., Kajita, R., Torii, K. U., Bergmann, D. C., Kakimoto, T.
  2007; 21 (14): 1720-1725
- **Transcription factor control of asymmetric cell divisions that establish the stomatal lineage** *NATURE*
  MacAlister, C. A., Ohashi-Ito, K., Bergmann, D. C.

2007; 445 (7127): 537-540

- **Stomatal development** *ANNUAL REVIEW OF PLANT BIOLOGY*
  Bergmann, D. C., Sack, F. D.
  2007; 58: 163-181
- **Stomatal development: from neighborly to global communication** *CURRENT OPINION IN PLANT BIOLOGY*
  Bergmann, D.
  2006; 9 (5): 478-483
- **Arabidopsis FAMA controls the final proliferation/differentiation switch during stomatal development** *PLANT CELL*
  Ohashi-Ito, K., Bergmann, D. C.
  2006; 18 (10): 2493-2505
- **Stomatal development and pattern controlled by a MAPKK kinase** *SCIENCE*
  Bergmann, D. C., Lukowitz, W., Somerville, C. R.
  2004; 304 (5676): 1494-1497
- **Integrating signals in stomatal development** *CURRENT OPINION IN PLANT BIOLOGY*
  Bergmann, D. C.
  2004; 7 (1): 26-32
- **Asymmetric divisions and cell signaling during epidermal cell specification in Arabidopsis.**
  Bergmann, D., Lukowitz, W., Somerville, C.
  ACADEMIC PRESS INC ELSEVIER SCIENCE.2003: 523
- **Completion of cytokinesis in C-elegans requires a brefeldin A-sensitive membrane accumulation at the cleavage furrow apex** *CURRENT BIOLOGY*
  Skop, A. R., Bergmann, D., Mohler, W. A., White, J. G.
  2001; 11 (10): 735-746
- **Maternal effect of low temperature on handedness determination in C-elegans embryos** *DEVELOPMENTAL GENETICS*
  Wood, W. B., Bergmann, D., Florance, A.
  1996; 19 (3): 222-230