Stanford



Dominique Bergmann

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

Biology

NIH Biosketch available Online

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://stanfordstomata.sites.stanford.edu/

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

2026-27

- Biology PhD Lab Rotation: BIO 299 (Aut, Win, Spr)
- Genetics: BIO 82 (Win)

2025-26

- Genetics: BIO 82 (Win)

2024-25

- Genetics: BIO 82 (Win)

2023-24

- Genetics: BIO 82 (Win)

STANFORD ADVISEES

Doctoral Dissertation Reader (AC)

Yalikunjiang Aizezi, Will Dwyer, Zoya Gauhar, Nadia Haghani, Ayaka Kasamatsu, Lauren Lubeck, Albert Marti i Sabari, Brennan McDonald, Omar Niagne, Carly Stein, Nabor Vazquez Martinez, James Zwierzynski

Postdoctoral Faculty Sponsor

Aimee Uyehara

Doctoral Dissertation Advisor (AC)

Siobhan Bridson, Peyton Dooley, Harper Lowrey, Jack Riley, Macy Vollbrecht

Doctoral (Program)

Macy Vollbrecht

GRADUATE AND FELLOWSHIP PROGRAM AFFILIATIONS

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

Publications

PUBLICATIONS

- **Stomatal setpoints and environmental responsiveness are sculpted by developmental trajectories.** *Current biology : CB*
  Rath, M., Sharma, N., Mani, M., Bergmann, D. C.
  2026
- **SPEECHLESS duplication in grasses expands potential for environmental regulation of stomatal development.** *The New phytologist*
  Erberich, J. M., Bennett, B., Bergmann, D. C.
  2025
- **Multi-scale dynamics influence the division potential of stomatal lineage ground cells in Arabidopsis.** *Nature communications*
  Fung, H. F., Amador, G. O., Dale, R., Gong, Y., Vollbrecht, M., Erberich, J. M., Mair, A., Bergmann, D. C.
  2025; 16 (1): 2612
- **The ACTL domain of stomatal lineage bHLHs confers in vivo partner specificity.** *bioRxiv : the preprint server for biology*
  Mair, A., Dooley, P., Xu, S. L., Bergmann, D. C.
  2026
- **Targets of SPEECHLESS and FAMA control guard cell division and expansion in the late stomatal lineage.** *Development (Cambridge, England)*
  Gonzalez-Suarez, P., Hilbers, Y., Budrys, A., Liu, A., Richter, S., Bergmann, D. C., Smit, M. E.
  2026
- **Mechanisms and flexibility in plant asymmetric cell division.** *Current opinion in plant biology*

Mathew, M. M., Bergmann, D. C.
2026; 91: 102896

- **Genetic encoding of climate-responsive stomatal developmental plasticity in tomato.** *bioRxiv : the preprint server for biology*
  Nir, I., Budrys, A., Suraev, D., Prodjinoto, H., Erberich, J., Tirnover, J., Zafrir, E., Kutsher, Y., Smoot, N. K., Bergmann, D. C.
  2026
- **Dominique Bergmann** *NEW PHYTOLOGIST*
  Bergmann, D.
  2025
- **SPEECHLESS duplication in grasses expands potential for environmental regulation of stomatal development.** *bioRxiv : the preprint server for biology*
  Erberich, J. M., Bennett, B., Bergmann, D. C.
  2025
- **An interview with Dominique Bergmann** *DEVELOPMENT*
  Bergmann, D.
  2025; 152 (4)
- **A genetic switch drove photosynthesis evolution** *NATURE*
  Rath, M., Bergmann, D.
  2024
- **bHLH transcription factors cooperate with chromatin remodelers to regulate cell fate decisions during Arabidopsis stomatal development.** *PLoS biology*
  Liu, A., Mair, A., Matos, J. L., Vollbrecht, M., Xu, S. L., Bergmann, D. C.
  2024; 22 (8): e3002770
- **Guidelines for naming and studying plasma membrane domains in plants.** *Nature plants*
  Jaillais, Y., Bayer, E., Bergmann, D. C., Botella, M. A., Boutté, Y., Bozkurt, T. O., Caillaud, M. C., Germain, V., Grossmann, G., Heilmann, I., Hemsley, P. A., Kirchhelle, C., Martinière, et al
  2024
- **Century-long timelines of herbarium genomes predict plant stomatal response to climate change.** *Nature ecology & evolution*
  Lang, P. L., Erberich, J. M., Lopez, L., Weiß, C. L., Amador, G., Fung, H. F., Latorre, S. M., Lasky, J. R., Burbano, H. A., Expósito-Alonso, M., Bergmann, D. C.
  2024
- **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)
- **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
- **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
- **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
- **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
- **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
- **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
- **How to build a crop plant: Defining the cis-regulatory landscape of maize.** *Cell*
  Liu, A., Bergmann, D. C.
  2021; 184 (11): 2804-2806
- **Stomatal development in the grasses: lessons from models and crops (and crop models).** *The New phytologist*
  McKown, K. H., Bergmann, D. C.
  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
- **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
- **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)
- **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
- **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
- **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. A. 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.
  edited by 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.
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- **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.
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- **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.
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- **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
- **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
- **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.
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