Stanford



Mary Beth Mudgett

Senior Associate Dean for the Natural Sciences and Susan B. Ford Professor Biology

CONTACT INFORMATION

Administrative Contact

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Bio

BIO

Mary Beth Mudgett, the Stanford Friends University Fellow in Undergraduate Education, is the Senior Associate Dean for the Natural Sciences in the School of Humanities & Sciences. She received her doctorate in biochemistry at University of California, Los Angeles and has been a professor in Stanford's Department of Biology since 2002. Her research group studies plant-pathogen interactions, focusing on the biochemical mechanisms that pathogens use to manipulate the plant immune system resulting in disease outbreaks. As president of the International Society for Plant-Microbe Interactions, Mudgett launched a series of virtual symposia and platforms to enable networking on a global scale, while creating an inclusive environment to hear from the society's diverse stakeholders. Mudgett is also passionate about teaching and mentorship. She has launched new initiatives within biology to embrace different learning styles and enhance the student experience in the classroom. She also partners with faculty and staff across campus to increase student diversity within the natural sciences. In her prior role as Senior Associate Dean for Education Initiatives, Mary Beth has led an effort to reshape introductory science and math courses to better support students with different levels of preparation for success in STEM majors. She also has overseen an initiative to enhance undergraduate teaching, including a schoolwide mentorship program for junior faculty. As co-chair of Stanford's Academic Continuity Group, Mudgett helped the university blaze a path through the thicket of teaching challenges posed by the pandemic. She helped to solve problems involving online learning and curriculum development and to create the infrastructure and support needed for faculty, staff, and students to safely return to in-person instruction. In addition, she directed the Dean's Fellows Program, which provided teaching and research opportunities for graduate students completing their degrees and facing a job market made challenging by the pandemic

ACADEMIC APPOINTMENTS

- · Associate Professor, Biology
- Professor, Biology
- Member, Bio-X

ADMINISTRATIVE APPOINTMENTS

- Senior Associate Dean of Natural Sciences, School of Humanities & Sciences, Stanford University, (2022- present)
- Senior Associate Dean, Educational Initiatives, School of Humanities & Sciences, Stanford University, (2019-2022)
- Adjunct Staff Scientist, Department of Plant Biology, Carnegie Institute of Science, (2016- present)

- Professor, Department of Biology, Stanford University, (2015- present)
- Associate Professor, Department of Biology, Stanford University, (2010-2015)
- Assistant Professor, Department of Biology, Stanford University, (2002-2009)

HONORS AND AWARDS

- Bass Fellow, Stanford Friends University Fellow in Undergraduate Education, Stanford University (2018-2022)
- Dean's Award for Distinguished Teaching, School of H&S, Stanford University (2017)
- Phi Beta Kappa Teaching Excellence Prize, PBK Northern Chapter (2017)
- Phi Beta Kappa Teaching Prize, Stanford University (2016)
- Excellence in Diversity, Bioscience Faculty Excellence Award, School of Medicine, Stanford University (2014)
- VPUE Faculty Scholar, Stanford University (2013-2014)
- Chambers Fellow, Stanford University (2011-2014)
- Teacher of the Year, Associated Students of Stanford University (2008)
- Hellman Faculty Scholar, Stanford University (2005-2006)
- Terman Fellow, Stanford University (2004-2010)
- National Research Service Award, National Institute of Health (1997-1999)
- Graduate Research Achievement Award, University of California, Los Angeles (1992)
- Graduate Teaching Assistant Award, University of California, Los Angeles (1990)

BOARDS, ADVISORY COMMITTEES, PROFESSIONAL ORGANIZATIONS

- Advisor, University Accreditation Advisory Committee, Stanford University (2022 present)
- Chair, Execute Advisory Committee for Hopkins Marine Station, Stanford University (2021 present)
- Member, Faculty Senate, Stanford University (2021 present)
- Chair, Center for Teaching & Learning Director Search, Stanford University (2021 2021)
- Co-Chair, Summer Program Committee, Stanford University (2020 present)
- Member, IDEAL Education Committee, Stanford University (2020 present)
- Co-lead, Academic Continuity, Pandemic Response, Stanford University (2020 2022)
- Member, Policy Group for Pandemic Response, Stanford University (2020 2022)
- Advisor, VPUE Undergraduate Advisory Council, Stanford University (2019 present)
- President, International Society for Molecular Plant-Microbe Interactions (2019 2022)
- Member, Committee on Committees, Stanford Academic Council, Stanford University (2019 2020)
- Member, Search Committee for Vice Provost of Undergraduate Education, Stanford University (2019 2020)
- Member, Faculty Senate, Stanford University (2018 2020)
- Member, First Year Experience Design Team, Long-range Planning, Stanford University (2018 2019)
- Member, Steering Committee, Stanford Academic Council, Stanford University (2018 2019)
- Chair, Natural Sciences Long-Range Planning, School of Humanities & Sciences, Stanford University (2017 2017)
- Member, Committee on Review of Undergraduate Majors (C-RUM), Stanford University (2016 2019)
- Reviewer, Biophysics IDP Graduate Program, School of Medicine, Stanford University (2016 2016)
- Reviewer, Immunology IDP Graduate Program, School of Medicine, Stanford University (2016 2016)
- Advisor, Advisory Committee for NIH IRACDA Postdoctoral Program, Stanford University (2015 2020)

- Director of Graduate Studies, Department of Biology, Stanford University (2015 2019)
- Member, Committee on Graduate Admissions and Policy, Bioscience Program, Stanford University (2014 2019)
- Member, Executive Committee, Biology Department, Stanford University (2014 2019)
- Fellow, ChEM-H: Chemistry, Engineering & Medicine for Human Health, Stanford University (2013 present)
- Chair, Bioscience Diversity Advisory Council (BDAC), School of Medicine, Stanford University (2013 2020)
- Member, Steering Committee, NIH Biotech Predoctoral Training Program, Bioengineering, Stanford University (2013 2020)
- Member, Postdoctoral Mentoring Initiative Task Force, Stanford Biosciences, Stanford University (2013 2014)
- Member, Sustainable Funding Model Working Group, Stanford Biosciences, Stanford University (2013 2014)
- Participant, Vision & Change in Undergraduate Biology Education, National Science Foundation & AAAS (2013 2013)
- Board Member, International Society for Molecular Plant-Microbe Interactions (2012 present)
- Member, Biology Graduate Studies Committee, Stanford University (2011 2019)
- Chair of Biology Graduate Admissions & Recruiting, Stanford University (2011 2014)
- Member, Faculty Senate, Stanford University (2011 2014)
- Editor, Frontiers in Plant-Microbe Interactions, Frontiers Journal (2010 2014)
- Specialty Chief Editor, Frontiers in Plant-Microbe Interactions, Frontiers Journal (2010 2014)
- Member, Committee on Research (C-Res), Stanford University (2010 2013)
- Chair & Board Member, Pierce's Disease/Glassy Wing Sharp Shooter Research Advisory Board, California Department of Food & Agriculture (2009 2014)
- Senior Editor, Molecular Plant Pathology, British Society for Plant Pathology (2009 2011)
- Advisor, Pre-Major Undergraduate Advisor, Stanford University (2007 2018)
- Advisor, Graduate Program Review, Department of Molecular & Cell Biology, Oregon State University (2006 2006)
- Associate Editor, Molecular Plant-Microbe Interactions, International Society for Plant-Microbe Interactions (2004 2005)
- Advisor, Annual Review of Plant Biology, Annual Reviews (2004 2004)
- Member, Biology Undergraduate Studies Committee, Stanford University (2003 2009)
- Advisor, Biology First Year Graduate Advising, Stanford University (2002 present)
- Advisor, NSF US-EC Task Force on Biotechnology, National Science Foundation (2001 2001)
- Member, International Society of Plant-Microbe Interactions (1996 present)

PROFESSIONAL EDUCATION

- Postdoctoral Scholar, University of California, Berkeley, Plant-Microbe Interactions (2001)
- Postdoctoral Scholar, University of California, Los Angeles, Biochemistry (1995)
- PhD, University of California, Los Angeles , Biochemistry (1994)
- BA, Ithaca College , Biochemistry (1989)

LINKS

• Mudgett Lab Website: http://web.stanford.edu/group/mudgettlab/cgi-bin/wordpress/

Research & Scholarship

CURRENT RESEARCH AND SCHOLARLY INTERESTS

My laboratory studies the biochemical mechanisms used by bacterial pathogens to alter plant physiology during infection. Extensive genetic and phenotypic data indicate that the bacterial type three secretion (T3S) system and its protein substrates (referred to as T3S effectors) are the major virulence determinants that promote

pathogen colonization in plants. The paradigm for T3S effector function has been that these proteins collectively suppress host defense responses to promote colonization and disease progression. The biological function(s) of most T3S effectors, however, is extremely limited and biochemical support for this paradigm is lacking. Thus, the goal of our research has been to elucidate T3S effector function, identify host targets, and provide fundamental knowledge of how perturbation of of distinct nodes in host signaling pathways leads to bacterial pathogenesis. To do so, we study the T3S effectors in Xanthomonas euvesicatoria (Xcv), a Gram-negative, facultative parasite that causes leaf spot disease in tomato and pepper. Understanding how plant innate immunity is regulated and how pathogens manipulate plant hosts is is fundamental knowledge that is required for the development of novel strategies to prevent and/or eliminate plant disease in the field.

Currently, my group is investigating: 1) how Xanthomonas employs a transcription repressor to rewire host transcription during infection to alter immune signaling and growth programs; 2) how Xanthomonas effectors target 14-3-3 phospho-binding proteins to alter immune complexes and signaling; 3) the impact of Xanthomonas-mediated acetylation of host proteins that are involved with lipid signaling and microtubule dynamics; 4) how Xanthomonas uses a "default to death and defense strategy" to promote plant pathogenesis; and 5) unique natural products made during pathogen infection in tomato by applying a untargeted metabolomics in conjunction with transcriptomics to accelerate the discovery of new antimicrobial compounds and their biosynthetic pathways.

Teaching

COURSES

2020-21

• Foundations in Experimental Biology: BIOS 200 (Aut)

• Problem solving in infectious disease: BIO 60 (Sum)

STANFORD ADVISEES

Doctoral Dissertation Reader (AC)

Willian Goudinho Viana

Postdoctoral Faculty Sponsor

Jessica Foret

 $\textbf{Doctoral Dissertation Advisor} \ (AC)$

Steven Massa, Omar Niagne

Doctoral Dissertation Co-Advisor (AC)

Yalikunjiang Aizezi, Iris Mollhoff

Undergraduate Major Advisor

Amanda Meyer

Doctoral (Program)

Iris Mollhoff

GRADUATE AND FELLOWSHIP PROGRAM AFFILIATIONS

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

Publications

PUBLICATIONS

Dynamic changes of the Prf/Pto tomato resistance complex following effector recognition. Nature communications

Sheikh, A. H., Zacharia, I., Pardal, A. J., Dominguez-Ferreras, A., Sueldo, D. J., Kim, J. G., Balmuth, A., Gutierrez, J. R., Conlan, B. F., Ullah, N., Nippe, O. M., Girija, A. M., Wu, et al 2023; 14 (1): 2568

Deconvoluting signals downstream of growth and immune receptor kinases by phosphocodes of the BSU1 family phosphatases. Nature plants
 Park, C. H., Bi, Y., Youn, J., Kim, S., Kim, J., Xu, N. Y., Shrestha, R., Burlingame, A. L., Xu, S., Mudgett, M. B., Kim, S., Kim, T., Wang, et al. 2022

A bacterial effector counteracts host autophagy by promoting degradation of an autophagy component. The EMBO journal

Leong, J. X., Raffeiner, M., Spinti, D., Langin, G., Franz-Wachtel, M., Guzman, A. R., Kim, J. G., Pandey, P., Minina, A. E., Macek, B., Hafrén, A., Bozkurt, T. O., Mudgett, et al

2022: e110352

Arabidopsis UGT76B1 glycosylates N-hydroxy-pipecolic acid and inactivates systemic acquired resistance in tomato. The Plant cell
Holmes, E. C., Chen, Y., Mudgett, M. B., Sattely, E. S.
 2021

- Arabidopsis bZIP11 is a susceptibility factor during Pseudomonas syringae infection. Molecular plant-microbe interactions: MPMI
 Prior, M. J., Selvanayagam, J., Kim, J., Tomar, M., Jonikas, M., Mudgett, M. B., Smeekens, S., Hanson, J., Frommer, W. B.
 2021
- Arabidopsis UGT76B1 glycosylates N-hydroxy-pipecolic acid and inactivates systemic acquired resistance in tomato. The Plant cell
 Holmes, E. C., Chen, Y. C., Mudgett, M. B., Sattely, E. S.
 2021; 33 (3): 750–65
- Tomato Atypical Receptor Kinase1 is involved in the regulation of pre-invasion defense. Plant physiology Guzman, A. R., Kim, J., Taylor, K. W., Lanver, D., Mudgett, M. B.
 2020
- A Pathogen-Responsive Gene Cluster for Highly Modified Fatty Acids in Tomato. Cell
 Jeon, J. E., Kim, J. G., Fischer, C. R., Mehta, N. n., Dufour-Schroif, C. n., Wemmer, K. n., Mudgett, M. B., Sattely, E. n. 2020; 180 (1): 176–87.e19
- An engineered pathway for N-hydroxy-pipecolic acid synthesis enhances systemic acquired resistance in tomato. Science signaling
 Holmes, E. C., Chen, Y., Sattely, E. S., Mudgett, M. B.
 2019; 12 (604)
- Aphid effector Me10 interacts with tomato TFT7, a 14-3-3 isoform involved in aphid resistance NEW PHYTOLOGIST
 Chaudhary, R., Peng, H., He, J., MacWilliams, J., Teixeira, M., Tsuchiya, T., Chesnais, Q., Mudgett, M., Kaloshian, I.
 2019; 221 (3): 1518–28
- Tomato bHLH132 transcription factor controls growth and defense and is activated by Xanthomonas euvesicatoria effector XopD during pathogenesis. Molecular plant-microbe interactions: MPMI
 Kim, J. G., Mudgett, M. B.
 2019
- Aphid effector Me10 interacts with tomato TFT7, a 14-3-3 isoform involved in aphid resistance. *The New phytologist* Chaudhary, R., Peng, H., He, J., MacWilliams, J., Teixeira, M., Tsuchiya, T., Chesnais, Q., Mudgett, M. B., Kaloshian, I.
- Tomato 14-3-3 proteins are required for Xv3 disease resistance and interact with a subset of Xanthomonas euvesicatoria effectors. Molecular plant-microbe interactions: MPMI

Dubrow, Z., Sunitha, S., Kim, J., Aakre, C., Girija, A. M., Sobol, G., Teper, D., Chen, Y., Ozbaki-Yagan, N., Vance, H., Sessa, G., Mudgett, M. B. 2018

N-hydroxy-pipecolic acid is a mobile metabolite that induces systemic disease resistance in Arabidopsis PROCEEDINGS OF THE NATIONAL ACADEMY
OF SCIENCES OF THE UNITED STATES OF AMERICA

Chen, Y., Holmes, E. C., Rajniak, J., Kim, J., Tang, S., Fischer, C. R., Mudgett, M., Sattely, E. S. 2018; 115 (21): E4920–E4929

Quantification of Ethylene Production in Tomato Leaves Infected by Xanthomonas euvesicatoria. Bio-protocol

Kim, J., Stork, W., Mudgett, M. B.

2016; 6 (3)

• Functional Analysis of Plant Defense Suppression and Activation by the Xanthomonas Core Type III Effector XopX MOLECULAR PLANT-MICROBE INTERACTIONS

Stork, W., Kim, J., Mudgett, M. B.

2015; 28 (2): 180-194

A Comprehensive Analysis of MicroProteins Reveals Their Potentially Widespread Mechanism of Transcriptional Regulation. Plant physiology

Magnani, E., de Klein, N., Nam, H., Kim, J., Pham, K., Fiume, E., Mudgett, M. B., Rhee, S. Y.

2014: 165 (1): 149-159

• The bHLH Transcription Factor HBI1 Mediates the Trade-Off between Growth and Pathogen-Associated Molecular Pattern-Triggered Immunity in Arabidopsis. Plant cell

Fan, M., Bai, M., Kim, J., Wang, T., Oh, E., Chen, L., Park, C. H., Son, S., Kim, S., Mudgett, M. B., Wang, Z. 2014; 26 (2): 828-841

AvrBsT acetylates Arabidopsis ACIP1, a protein that associates with microtubules and is required for immunity. PLoS pathogens

Cheong, M. S., Kirik, A., Kim, J., Frame, K., Kirik, V., Mudgett, M. B. 2014; 10 (2)

A robust methodology to subclassify pseudokinases based on their nucleotide-binding properties. Biochemical journal

Murphy, J. M., Zhang, Q., Young, S. N., Reese, M. L., Bailey, F. P., Eyers, P. A., Ungureanu, D., Hammaren, H., Silvennoinen, O., Varghese, L. N., Chen, K., Tripaydonis, A., Jura, et al

2014; 457 (2): 323-334

 Xanthomonas euvesicatoria typeIII effector XopQ interacts with tomato and pepper 14-3-3 isoforms to suppress effector-triggered immunity PLANT JOURNAL

Teper, D., Salomon, D., Sunitha, S., Kim, J., Mudgett, M. B., Sessa, G.

2014; 77 (2): 297-309

• Xanthomonas euvesicatoria type III effector XopQ interacts with tomato and pepper 14-3-3 isoforms to suppress effector-triggered immunity. The Plant journal: for cell and molecular biology

Teper, D., Salomon, D., Sunitha, S., Kim, J. G., Mudgett, M. B., Sessa, G. 2013

 Xanthomonas type III effector XopD desumoylates tomato transcription factor SIERF4 to suppress ethylene responses and promote pathogen growth. Cell host & microbe

Kim, J., Stork, W., Mudgett, M. B.

2013; 13 (2): 143-154

• Regulation of Cell Wall-Bound Invertase in Pepper Leaves by Xanthomonas campestris pv. vesicatoria Type Three Effectors PLOS ONE

Sonnewald, S., Priller, J. P., Schuster, J., Glickmann, E., Hajirezaei, M., Siebig, S., Mudgett, M. B., Sonnewald, U.

2012; 7 (12)

• Tomato TFT1 Is Required for PAMP-Triggered Immunity and Mutations that Prevent T3S Effector XopN from Binding to TFT1 Attenuate Xanthomonas Virulence PLOS PATHOGENS

Taylor, K. W., Kim, J., Su, X. B., Aakre, C. D., Roden, J. A., Adams, C. M., Mudgett, M. B.

• Comparative analysis of the XopD type III secretion (T3S) effector family in plant pathogenic bacteria MOLECULAR PLANT PATHOLOGY

Kim, J., Taylor, K. W., Mudgett, M. B.

2011; 12 (8): 715-730

• A New Leaf Blight of Rice Caused by Pantoea ananatis in India. Plant disease

Mondal, K. K., Mani, C. n., Singh, J. n., Kim, J. G., Mudgett, M. B.

2011; 95 (12): 1582

• Sugar transporters for intercellular exchange and nutrition of pathogens NATURE

Chen, L., Hou, B., Lalonde, S., Takanaga, H., Hartung, M. L., Qu, X., Guo, W., Kim, J., Underwood, W., Chaudhuri, B., Chermak, D., Antony, G., White, et al 2010; 468 (7323): 527-U199

SOBER1 phospholipase activity suppresses phosphatidic acid accumulation and plant immunity in response to bacterial effector AvrBsT PROCEEDINGS
OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA

Kirik, A., Mudgett, M. B. 2009; 106 (48): 20532-20537

 Xanthomonas T3S Effector XopN Suppresses PAMP-Triggered Immunity and Interacts with a Tomato Atypical Receptor-Like Kinase and TFT1 PLANT CFLI

Kim, J., Li, X., Roden, J. A., Taylor, K. W., Aakre, C. D., Su, B., Lalonde, S., Kirik, A., Chen, Y., Baranage, G., McLane, H., Martin, G. B., Mudgett, et al 2009: 21 (4): 1305-1323

 XopD SUMO protease affects host transcription, promotes pathogen growth, and delays symptom development in Xanthomonas-infected tomato leaves PLANT CELL

 $Kim, J., Taylor, K.\ W.,\ Hotson,\ A.,\ Keegan,\ M.,\ Schmelz,\ E.\ A.,\ Mudgett,\ M.\ B.$

2008; 20 (7): 1915-1929

• Blue-light-activated histidine kinases: Two-component sensors in bacteria SCIENCE

Swartz, T. E., Tseng, T., Frederickson, M. A., Paris, G., Comerci, D. J., Rajashekara, G., Kim, J., Mudgett, M. B., Splitter, G. A., Ugalde, R. A., Goldbaum, F. A., Briggs, W. R., Bogomolni, et al

2007; 317 (5841): 1090-1093

An alpha-amylase (At4g25000) in Arabidopsis leaves is secreted and induced by biotic and abiotic stress PLANT CELL AND ENVIRONMENT

Doyle, E. A., Lane, A. M., Sides, J. M., Mudgett, M. B., Monroe, J. D.

2007; 30 (4): 388-398

A conserved carboxylesterase is a SUPPRESSOR OF AVRBST-ELICITED RESISTANCE in Arabidopsis PLANT CELL

Cunnac, S., Wilson, A., Nuwer, J., Kirik, A., Baranage, G., Mudgett, M. B.

2007; 19 (2): 688-705

New insights to the function of phytopathogenic bacterial type III effectors in plants ANNUAL REVIEW OF PLANT BIOLOGY

Mudgett, M. B.

2005; 56: 509-531

A genetic screen to isolate type III effectors translocated into pepper cells during Xanthomonas infection PROCEEDINGS OF THE NATIONAL ACADEMY
OF SCIENCES OF THE UNITED STATES OF AMERICA

Roden, J. A., Belt, B., Ross, J. B., Tachibana, T., Vargas, J., Mudgett, M. B.

2004; 101 (47): 16624-16629

 Cysteine proteases in phytopathogenic bacteria: identification of plant targets and activation of innate immunity CURRENT OPINION IN PLANT BIOLOGY

Hotson, A., Mudgett, M. B.

2004; 7 (4): 384-390

Characterization of the Xanthomonas AvrXv4 effector, a SUMO protease translocated into plant cells MOLECULAR PLANT-MICROBE INTERACTIONS
Roden, J., Eardley, L., Hotson, A., Cao, Y. Y., Mudgett, M. B.

2004; 17 (6): 633-643

• Importance of opgH(Xcv) of Xanthomonas campestris pv. vesicatoria in host-parasite interactions MOLECULAR PLANT-MICROBE INTERACTIONS

Minsavage, G. V., Mudgett, M. B., Stall, R. E., Jones, J. B.

2004; 17 (2): 152-161

Xanthomonas type III effector XopD targets SUMO-conjugated proteins in planta MOLECULAR MICROBIOLOGY

Hotson, A., Chosed, R., Shu, H. J., Orth, K., Mudgett, M. B.

2003; 50 (2): 377-389

• Common and contrasting themes of plant and animal diseases SCIENCE

Staskawicz, B. J., Mudgett, M. B., Dangl, J. L., Galan, J. E.

2001; 292 (5525): 2285-2289

 Mutational analysis of the Arabidopsis RPS2 disease resistance gene and the corresponding Pseudomonas syringae avrRpt2 avirulence gene MOLECULAR PLANT-MICROBE INTERACTIONS

Axtell, M. J., McNellis, T. W., Mudgett, M. B., Hsu, C. S., Staskawicz, B. J.

2001; 14 (2): 181-188

• Disruption of signaling by Yersinia effector YopJ, a ubiquitin-like protein protease SCIENCE

Orth, K., Xu, Z. H., Mudgett, M. B., Bao, Z. Q., Palmer, L. E., Bliska, J. B., Mangel, W. F., Staskawicz, B., Dixon, J. E. 2000; 290 (5496): 1594-1597

 Molecular signals required for type III secretion and translocation of the Xanthomonas campestris AvrBs2 protein to pepper plants PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA

Mudgett, M. B., Chesnokova, O., Dahlbeck, D., Clark, E. T., Rossier, O., Bonas, U., Staskawicz, B. J. 2000: 97 (24): 13324-13329

 Molecular Characterization of the avrBs2 gene of Xanthomonas campestris pv. vesicatoria and the Bs2 gene of pepper 9th International Congress on Molecular Plant-Microbe Interactions

Tai, T., Dahlbeck, D., Gassmann, W., Chesnokova, O., Whalen, M., Clark, E., Mudgett, M. B., Staskawicz, B.

INTERNATIONAL SOC MOLECULAR PLANT-MICROBE INTERACTIONS.2000: 223-226

 Characterization of the Pseudomonas syringae pv. tomato AvrRpt2 protein: demonstration of secretion and processing during bacterial pathogenesis MOLECULAR MICROBIOLOGY

Mudgett, M. B., Staskawicz, B. J.

1999; 32 (5): 927-941

Glucocorticoid-inducible expression of a bacterial avirulence gene in transgenic Arabidopsis induces hypersensitive cell death PLANT JOURNAL

McNellis, T. W., Mudgett, M. B., Li, K., Aoyama, T., Horvath, D., Chua, N. H., Staskawicz, B. J.

1998; 14 (2): 247-257

Protein signaling via type III secretion pathways in phytopathogenic bacteria CURRENT OPINION IN MICROBIOLOGY

Mudgett, M. B., Staskawicz, B. J.

1998; 1 (1): 109-115

 Protein repair L-isoaspartyl methyltransferase in plants - Phylogenetic distribution and the accumulation of substrate proteins in aged barley seeds PLANT PHYSIOLOGY

Mudgett, M. B., Lowenson, J. D., Clarke, S.

1997; 115 (4): 1481-1489

 $\bullet \ \ A \ distinctly \ regulated \ protein \ repair \ L-isoaspartylmethyl transferase \ from \ Arabidops is \ thaliana \ \textit{PLANT MOLECULAR BIOLOGY}$

Mudgett, M. B., Clarke, S.

1996; 30 (4): 723-737

• EXCEPTIONAL SEED LONGEVITY AND ROBUST GROWTH - ANCIENT SACRED LOTUS FROM CHINA AMERICAN JOURNAL OF BOTANY SHENMILLER, J., Mudgett, M. B., Schopf, J. W., Clarke, S., Berger, R.

1995; 82 (11): 1367-1380

• HORMONAL AND ENVIRONMENTAL RESPONSIVENESS OF A DEVELOPMENTALLY-REGULATED PROTEIN REPAIR L-ISOASPARTYL METHYLTRANSFERASE IN WHEAT JOURNAL OF BIOLOGICAL CHEMISTRY

Mudgett, M. B., Clarke, S.

1994; 269 (41): 25605-25612

 CHARACTERIZATION OF PLANT L-ISOASPARTYL METHYLTRANSFERASES THAT MAY BE INVOLVED IN SEED SURVIVAL -PURIFICATION, CLONING, AND SEQUENCE-ANALYSIS OF THE WHEAT-GERM ENZYME BIOCHEMISTRY

Mudgett, M. B., Clarke, S.

1993; 32 (41): 11100-11111