

Curriculum Vitae

PROFILE AND CONTACT INFORMATION

Full Name: Derek Severi Lundberg
 Address: Swedish University of Agricultural Sciences (SLU)
 Uppsala BioCenter, Room A-483, Almas Allé 5, SE-75651 Uppsala, Sweden
 Email: Derek.Lundberg@slu.se
 BlueSky: [@DerekSeveri.Bsky.Social](https://bsky.app/profile/DerekSeveri.Bsky.Social)
 ORCID: <https://orcid.org/0000-0001-7970-1595>
 Google Scholar: <https://scholar.google.com/citations?hl=en&user=zx2G6rYAAAAJ>
 Website: www.LundbergLand.org

EDUCATION

- 16/Aug./2007–11/May/2014 Ph.D. in Genetics and Molecular Biology, University of North Carolina, Chapel Hill, USA. Advisor: Jeff Dangl
 "Root-associated bacterial communities as an extended phenotype of the plant"
 (Note: US Ph.D. degrees include 2 years of Masters-like coursework)
- 28/Aug./2002–14/May/2006 Bachelor of Science in Biology (minor in Chemistry)
 University of North Carolina, Chapel Hill, USA

EMPLOYMENT

- 7/Mar./2022–present Biträdande lektor and Docent (Assistant Professor)
 Swedish University of Agricultural Sciences (SLU)
- 24/July/2014–28/Feb./2022 Postdoctoral Research Fellow
 Max Planck Institute for Biology, Germany.
 Advisor: Detlef Weigel

PRIZES AND AWARDS

- 30/Jun./2015 Early Career Travel Award, Phytobiomes conference 2015
- 6/Jun./2014 Travel award, IS-MPMI conference 2014
- 11/Sept./2012 Kenan-Hobgood Genetics and Molecular Biology Dissertation Award, University of North Carolina, Chapel Hill, USA

GRANTS AND FELLOWSHIPS AWARDED IN COMPETITION

- July/2025–June/2027 **Novo Nordisk Foundation** Project Grant NNF24OC0094894, **Coordinator / Main applicant** 3 years, **4.4 M DKK** (~622,314 USD) split evenly with co-PI Roosa Laitinen (Helsinki University)
 "Improving future productivity of cruciferous oilseed crops with balanced growth and defense"
- Feb/2024–Feb/2026 **Awarded but canceled (applied-for named postdoc unable to join):**
 Wenner-Gren Foundation stipend UPD2023-0007, **PI**
 2 years, **672,000 SEK** (~65,000 USD)
 "Modifying broad-spectrum disease resistance to improve canola yield".
- July/2024–June/2027 **FORMAS** Research Project Grant 2023-00465, **PI**
 3 years, **3 M SEK** (~275,000 USD)
 "Value of bacteria naturally living in Norway spruce to control wood-rot fungi"
- July/2024–June/2028 **Vetenskapsrådet (VR)** Research Project Grant 2023-04076, **PI**
 4 years, **4 M SEK** (~365,000 USD)
 "The role of plasmids in adapting bacteria of the genus *Sphingomonas* to life on plants."

- May/2022–April/2027 **Wallenberg Academy Fellows (WAF)** grant 2021.0102, **PI**
5 years, **13.1 M SEK** (~1.2M USD).
*"Revealing the secrets to success of *Sphingomonas*, a versatile bacterial genus with exceptional potential as a beneficial agricultural inoculant"*
[Why I declined ERC and NNF grants in favor of WAF](#)
Awarded but declined (redundant with WAF grant):
ERC Starting grant, €1.5 M (~1.6 M USD), **PI**
Awarded but declined (redundant with WAF grant): Novo Nordisk Emerging Investigator grant, 10 M DKK (~1.4 M USD), **PI**
- May/2015–June/2018 **Human Frontiers Science Program (HFSP)** long-term postdoctoral fellowship LT000565/2015-L
3 years, **€139,500** (~150,000 USD).
"Evolutionary genetics of plant-microbe interactions in natural populations"

SPECIAL ASSIGNMENTS

- Feb. 2025 Evaluator for bachelor's thesis of Julius Areskoug, SLU Uppsala, Sweden
- May 2023 External evaluator for International Doctorate Mention for Dr. Roger de Pedro Jové, Centre for Research in Agricultural Genomics (CRAG), Barcelona, Spain
- 28/Mar./2019 External examiner for the Ph.D. defense of Dr. Elizabeth Mittell University of Glasgow, UK

SUPERVISION

As group leader at SLU

- Sept./2025–present Naila Nazir, MS thesis student. [Primary supervisor.](#)
- Apr./2025–present Dr. Shailja Singh, Researcher. [Primary supervisor.](#)
- Oct./2025–present Claudia Cortes de Felipe, PhD student. [Co-supervisor.](#)
- Nov./2025–present Lauren Davies, PhD student. [Co-supervisor.](#)
- Jan./2025–present Dr. Kyle Gervers, Postdoc. [Primary supervisor.](#)
- Oct./2024–present Tsung-Ta Yu, PhD student. [Primary supervisor.](#)
- Feb./2024–Oct./2024 Mounika Thigulla, MS thesis student. [Primary supervisor.](#)
- Oct./2022–present Ezgi Mehmetoğlu Boz, PhD student. [Primary supervisor.](#)
- Sept./2022–present Dr. Franziska Liesecke, Postdoc. [Primary supervisor.](#)
- Oct./2022–present Dr. Hugo Barajas, Postdoc. [Primary supervisor.](#)
- Aug./2023 Katrin Fritschi, Max Planck Institute for Biology, Germany. Technician/Intern. [Primary supervisor.](#)
- Feb./2023 Dr. Nadjette Djemouai, University of Ghardaia, Algeria. Intern. [Primary supervisor.](#)

During postdoc at Max Planck Institute for Biology

- Oct./2021–Nov./2021 Ezgi Mehmetoğlu, Ege University, Turkey. Masters student intern. [Primary supervisor.](#)
- Sept./2021–Dec./2021 David Müller, Highschool student intern. [Primary supervisor.](#)
- March./2021–Aug./2021 Sophia Swartz, Harvard University. Bachelors student intern. [Primary supervisor.](#)
- Oct./2015–Jul./2019 Julian Regalado, Ph.D. student. [Co-supervisor.](#)
- 14/May/2018–14/Sept 2018 Roger de Pedro, Wageningen University, the Netherlands. Masters student intern. [Primary supervisor.](#)
- 1/Mar./2019–present Pratchaya Pramroj Na Ayutthaya, University of Tuebingen, Germany. Masters student intern and then technician. [Primary supervisor.](#)
- 1/Oct./2016–22/Mar/2019 Karin Poersch, University of Tübingen, Germany. Undergraduate student. [Primary supervisor.](#)
- 21/Oct/2018–15/Nov. 2018 Anita Bollman-Giolai, John Innes Centre, UK Ph.D. student intern. [Primary supervisor.](#)

- 1/Sept/2014–1/Jan/2016 Sonja Kersten, Technician. [Primary supervisor.](#)

During graduate school at UNC-CH

- 14/Oct/2010–5/Jul/2014 [Primary supervisor](#) (not concurrently) of six undergraduate researchers and one technician.

TEACHING EXPERIENCE

- Oct./2024 and continuing Lecturer on topic “Introduction to bacterial virulence and symbiosis in agriculture” for SLU Masters level course “Plant Pathology”.
- Dec./2023 and continuing Lecturer on topic “Biological control of plant diseases & stress” for SLU Masters level course “Plant-Microbe Interactions”.
- 1/Nov./2022– 10/Jan./2023 and continuing Course organizer at the SLU Ultuna campus for Masters level course “Plant Growth and Development”
- 31/May/2017– 14/Jun./2017 Co-instructed a thesis-writing course offered by the International Ph.D. Program of the Max Planck Institute for Biology.
19/May/2018– 19/Jun./2018
13/May/2019– 27/May/2019
- 5/Sept./2008– 5/Dec./2008 Biology 101 lab instructor for Ms. Barbara Stegenga at UNC-Chapel Hill
- 12/Jan./2006– 5/May/2006 Microbiology lab teaching assistant for Dr. Ann Matthysse at UNC-Chapel Hill

ASSIGNMENT AS REFEREE

- Journals:** **Editorial board** for the ISME Journal (April 2024-present)
Ad-hoc reviews for *Applied Soil Ecology*, *Cell*, *Environmental Microbiology*, *Environmental Microbiome*, *Frontiers in Microbiology*, *Genome Biology*, *the ISME Journal*, *iScience*, *Molecular Biology and Evolution*, *Nature [Biotechnology / Communications / Genetics / Microbiology / Plants]*, *New Phytologist*, *Plant Disease*, *Phytobiomes*, *PLOS [Biology / Genetics]*, *PNAS*, *Science*, *Scientific Reports*. Approximately 6-8 reviews per year since 2016.
- Funding bodies:** German Research Foundation DFG (2023, 2024), French National Research Agency ANR AAPG (2023), Israel Science Foundation (2023), Dutch Research Council (2022), Polish National Science Centre (2017), Genoscope of the France Génomique Scientific Committee (2016).
- Grant panel** for the German Research Foundation DFG panel in Kiel for establishment of research unit FOR 5640/1 (2024)

WORKSHOPS, COMMITTEES, AND PROFESSIONAL DEVELOPMENT

- 2022-2024 **Pedagogical coursework:**
SLU Teaching in higher education 2022. Sept. 21-22, Oct. 26-27, Nov. 30 - Dec. 1, 2022
SLU Course in doctoral supervision. Mar. 6-7, Apr. 26-27, May 23-24, 2023
SLU Educating for critical thinking and criticality. Feb. 15, Mar. 16, Apr. 13, 2023.
SLU Doctoral co-supervision in theory and practice. Sept. 6, 2023.
SLU Course in Grading and Assessment. Oct. 11, 2022.
SLU Education for sustainable development. Sept. 28, 2023.
SLU Course in accessible teaching Feb. 13, Feb. 20, 2024
- 2017 Contributed to the initiative to establish a priority programme with the German Research Foundation (DFG): Deconstruction and Reconstruction of the Plant Microbiota (Acronym: DECrypT).
- 29/Nov/2016– 1/Dec/2016 EMBO Laboratory Management Course for postdocs. Heidelberg, Germany.
- July/2015 Computational Advances in Microbiome Research (CAMR) Workshop. National Institute for Mathematical and Biological Synthesis (NIMBioS). Knoxville TN, USA.

ORAL PRESENTATIONS

- July/2025 *Determining roles of genes, context, and climate in sustainable plant-bacteria association.* Invited seminar. Wurzburg, Germany.
- June/2025 *Context, climate, and control of plant colonization by beneficial bacteria (Plenary).* 14th Conference of the European Foundation for Plant Pathology. Uppsala, Sweden.
- April/2025 *Secrets to sustainable beneficial plant-bacteria associations.* Botanical Colloquium at the University of Basel. Basel, Switzerland.
- Mar/2025 *Secrets to sustainable beneficial plant-bacteria associations.* Docent lecture. Swedish University of Agricultural Sciences. Uppsala, Sweden.
- Feb/2025 *Genomics in a plant-associated Sphingomonas culture collection to determine genes useful in agricultural inoculants.* Online. GetGenome (The Sainsbury Laboratory). Norwich, UK.
- Feb/2024 *Elephants of the plant microbiome hold genetic secrets for sustainable agriculture.* University of North Carolina at Chapel Hill. Chapel Hill NC, USA.
- Nov/2023 *Microbiomes and Sphingomonas, the yellow-orange elephant in the plant.* Friedrich Schiller University Jena, Institute of Microbiology. Jena, Germany.
- Dec/2022 *Uncovering the secrets of Sphingomonas, an extremely successful bacterial genus with agricultural potential.* University of Rajshahi, Bangladesh.
- Aug/2022 *From underground and from the air, microbes take but also share.* Utrecht University EPS Summer School. Utrecht, Netherlands.
- Mar/2021 *Wild Arabidopsis, an immune system bonus, and friendly 'omonas.* Linnean Centre seminar for plant biology in Uppsala. Uppsala, Sweden (online).
- Sept/2020 *Host-associated microbe PCR (hamPCR).* <https://youtu.be/CEfU8nJK-V4> Plantae Presents Panels - Plants and their microbiome - from molecules to ecosystems (online).
- July/2019 *Contrasting colonization and host range of Sphingomonas and Pseudomonas in wild Arabidopsis thaliana and neighboring plants.* XVIII Congress on Molecular Plant-Microbe Interactions (IS-MPMI). Glasgow, UK.
- Aug/2018 *Dirty weeds and the friends they keep: ACD6 and its effect on microbes and immunity in field-grown A. thaliana.* 17th International Symposium on Microbial Ecology (ISME17). Leipzig, Germany.
- Mar/2018 *Are strong natural ACD6 alleles in A. thaliana microbial paranoia?* 2nd International Pathobiome Symposium. Ajaccio, France.
- July/2017 *Evolutionary genetics of plant-microbe interactions in natural populations.* 17th HFSP Awardees Meeting. Lisbon, Portugal.
- July/2015 *Genetics of plant-microbe interactions in natural populations.* International Symposium on Phyllosphere Microbiology. Ascona, Switzerland.
- Nov/2014 *Breaking the wall of the greenhouse microcosm.* Falling Walls Lab. Berlin, Germany.
- Aug/2012 *Defining the core Arabidopsis thaliana root microbiome (Plenary).* XV Congress on Molecular Plant-Microbe Interactions (IS-MPMI). Kyoto, Japan.

BIBLIOMETRIC ANALYSIS (last updated: 15 Apr. 2025)

Total research publications: 24 (includes 1 bioRxiv preprint)

Other publications: 6 (1 book chapter, 1 protocol, 3 commentaries, 1 meeting report)

Total citations: 8871 (Google Scholar)

h-index: 23 (Google Scholar)

PUBLICATIONS

(* = contributed equally, † = corresponding author, OA = Open Access, PRE = preprint)

Other publications (book chapter, commentary, etc.

Preprint

2025

Lundberg, D. S.[†], Bergelson, J.[†], Roux, F.[†], Weigel, D.[†], & Karasov, T. L.[†] (2025). Lab to field: Challenges and opportunities for plant biology. *Cell Host and Microbe*, 33(8), 1212–1216.

[https://www.cell.com/cell-host-microbe/abstract/S1931-3128\(25\)00210-0](https://www.cell.com/cell-host-microbe/abstract/S1931-3128(25)00210-0)

Lundberg D.S.[†], Kersten S., Mehmetoğlu Boz E., Pramoj Na Ayutthaya P., Zhu W., Poersch K., Yuan W., Swartz S., Müller D., Bezrukov I., HARVEST TEAM, Weigel D.[†] (2025). A major trade-off between growth and defense in *Arabidopsis thaliana* can vanish in field conditions. *PLoS Biology*, 23(7), e3003237. <https://doi.org/10.1371/journal.pbio.3003237> [OA]

Barajas, H. R., & **Lundberg D.S.[†]** (2025). Root bacteria hack another plant hormone and affect yield. *Cell Host & Microbe*, 33(6), 934–936. <https://doi.org/10.1016/j.chom.2025.05.010>

2024

Karasov, T. L.[†], Neumann, M., Leventhal, L., Symeonidi, E., Shirsekar, G., Hawks, A., Monroe, G., Pathodopsis Team (**I am part of this team of 19**), Exposito-Alonso, M., Bergelson, J., Weigel, D.[†], & Schwab, R. (2024). Continental-scale associations of *Arabidopsis thaliana* phyllosphere members with host genotype and drought. *Nature Microbiology*, 9(10), 2748–2758. <https://doi.org/10.1038/s41564-024-01773-z> [OA]

Barrios, A. S., **Lundberg, D. S.**, de Lorenzo, L., Amos, K., Nair, M., Hunt, A., & DeBolt, S.[†]. (2024). Bacterial Spermosphere Inoculants Alter *N. benthamiana*-Plant Physiology and Host Bacterial Microbiome. *Plants*, 13(12), 1677. <https://doi.org/10.3390/plants13121677> [OA]

2023

Saarenpää S.^{*}, Shalev O.^{*}, Ashkenazy H.^{*}, de Oliveira-Carlos V., **Lundberg D.S.**, Weigel D., Giacomello S.[†] (2023). Spatial metatranscriptomics resolves host-bacteria-fungi interactomes. *Nature Biotechnology*. Available at: <https://doi.org/10.1038/s41587-023-01979-2>. [OA]

2022

Lundberg D.S.[†], de Pedro Jové R.^{*}, Pramoj Na Ayutthaya P.^{*}, Karasov T.L., Shalev Skriptchak O., Ding W., Bollmann-Giolai A., Bezrukov I., Weigel D.[†] (2022). Contrasting patterns of microbial dominance in the *Arabidopsis thaliana* phyllosphere. *Proc Natl Acad Sci USA* **119**:e2211881119. doi:10.1073/pnas.2211881119. <https://www.pnas.org/doi/10.1073/pnas.2211881119> [OA]

Karasov T.L., **Lundberg D.S.** (2022). The changing influence of host genetics on the leaf fungal microbiome throughout plant development. *PLoS Biol.* doi:10.1371/journal.pbio.3001748 <https://journals.plos.org/plosbiology/article?id=10.1371/journal.pbio.3001748> [OA, Commentary]

Shalev O., Karasov T.L., **Lundberg D.S.**, Ashkenazy H., Pramoj Na Ayutthaya P., Weigel D.[†] (2022). Commensal *Pseudomonas* strains facilitate protective response against pathogens in the host plant. *Nat Ecol Evol.* <https://doi.org/10.1038/s41559-022-01673-7> [OA]

2021

Lundberg D.S.[†], Pramoj Na Ayutthaya P., Strauß A., Shirsekar G., Lo W-S, Lahaye T., Weigel D.[†] (2021). Host-associated microbe PCR (hamPCR) enables convenient measurement of both microbial load and community composition. *eLife* **10**. <https://doi.org/10.7554/eLife.66186> [OA]

Shirsekar G., Devos J., Latorre S.M., Blaha A., Queiroz Dias M., González Hernando A., **Lundberg D.S.**, Burbano H.A., Fenster C.B., Weigel D.[†] (2021). Multiple Sources of Introduction of North American *Arabidopsis thaliana* from across Eurasia. *Mol Biol Evol* **38**:5328–5344. <https://doi.org/10.1093/molbev/msab268> [OA]

2020

Cambiagno, D. A., Giudicatti, A. J., Arce, A. L., Gagliardi, D., Li, L., Yuan, W., **Lundberg, D. S.**, Weigel, D., & Manavella, P. A.[†] (2020). HASTY modulates miRNA biogenesis by linking pri-miRNA transcription and processing. *Molecular Plant*. <https://doi.org/10.1016/j.molp.2020.12.019>

Regalado, J.^{*}, **Lundberg, D. S.^{*}**, Deusch, O., Kersten, S., Karasov, T., Poersch, K., Shirsekar, G., & Weigel, D.[†] (2020). Combining whole-genome shotgun sequencing and rRNA gene amplicon analyses to improve detection of microbe–microbe interaction networks in plant leaves. *The ISME Journal*, 14, 2116–2130. <https://doi.org/10.1038/s41396-020-0665-8> [OA]

Co-first contribution: Planned study and wrote the manuscript with help from JR and DW. Collected samples and prepared libraries with help from SK and KP. Analyzed data with help from JR and OD, particularly amplicon data and the integration of amplicon and whole metagenome shotgun data.

Pramoj Na Ayutthaya, P., **Lundberg, D. S.**, Weigel, D., & Li, L.[†] (2020). Blue Native Polyacrylamide Gel Electrophoresis (BN-PAGE) for the Analysis of Protein Oligomers in Plants. *Current Protocols in Plant Biology*, 5(2), e20107. <https://doi.org/10.1002/cppb.20107> [OA, Protocol]

2019

Karasov, T. L., Neumann, M., Duque-Jaramillo, A., Kersten, S., Bezrukov, I., Schröppel, B., Symeonidi, E., **Lundberg, D. S.**, Regalado, J., Shirsekar, G., Bergelson, J., & Weigel, D.[†] (2019). The relationship between microbial biomass and disease in the *Arabidopsis thaliana* phyllosphere. In *bioRxiv*, 828814. <https://doi.org/10.1101/828814> [OA, PRE]

Exposito-Alonso, M., **500 Genomes Field Experiment Team (I am part of this team of 38)**, Burbano, H. A., Bossdorf, O., Nielsen, R., & Weigel, D.[†] (2019). Natural selection on the *Arabidopsis thaliana* genome in present and future climates. *Nature* 573, 126–129. <https://doi.org/10.1038/s41586-019-1520-9> [OA]

2018

Karasov, T. L., Almario, J.*., Friedemann, C.*., Ding, W., Giolai, M., Heavens, D., Kersten, S., **Lundberg, D. S.**, Neumann, M., Regalado, J., Neher, R. A., Kemen, E., & Weigel, D.[†] (2018). *Arabidopsis thaliana* and *Pseudomonas* Pathogens Exhibit Stable Associations over Evolutionary Timescales. *Cell Host & Microbe*, 24(1), 168–179.e4. <https://doi.org/10.1016/j.chom.2018.06.011> [OA]

Lundberg, D. S., & Teixeira, P. J. P. L.[†] (2018). Root-exuded coumarin shapes the root microbiome [Commentary on “MYB72-dependent coumarin exudation shapes root microbiome assembly to promote plant health” by Stringlis et al. in the same issue]. *Proceedings of the National Academy of Sciences of the United States of America*, 115(22), 5629–5631. <https://doi.org/10.1073/pnas.1805944115> [OA, Commentary]

Levy A.*, Salas Gonzalez I.*, Mittelviehhaus M., Clingenpeel S., Herrera Paredes S., Miao J., Wang K., Devescovi G., Stillman K., Monteiro F., Rangel Alvarez B., **Lundberg D. S.**, Lu T-Y., Lebeis S., Jin Z., McDonald M., Klein A.P., Feltcher M.E., Glavina del Rio T., Grant S.R., Doty S.L., Ley R.E., Pelletier D.A., Vorholt J., Tringe S.G.[†], Woyke T.[†], and Dangl J.L.[†] (2018). Genomic features of bacterial adaptation to plants. *Nature Genetics*, 50(1), 138–150. <https://doi.org/10.1038/s41588-017-0012-9> [OA]

2017

Rowan, B. A., Seymour, D. K., Chae, E., **Lundberg, D. S.**, & Weigel, D.[†] (2017). Methods for Genotyping-by-Sequencing. *Methods in Molecular Biology*, 1492, 221–242. https://doi.org/10.1007/978-1-4939-6442-0_16 [Book chapter]

2016

Wagner, M. R.[†], **Lundberg, D. S.**, Del Rio, T. G., Tringe, S. G., Dangl, J. L., & Mitchell-Olds, T. (2016). Host genotype and age shape the leaf and root microbiomes of a wild perennial plant. *Nature Communications*, 7, 12151. <https://doi.org/10.1038/ncomms12151> [OA]

Biswas, S.[†], McDonald, M., **Lundberg, D. S.**, Dangl, J. L., & Jojic, V.[†] (2016). Learning Microbial Interaction Networks from Metagenomic Count Data. *Journal of Computational Biology: A Journal of Computational Molecular Cell Biology*, 23(6), 526–535. <https://doi.org/10.1089/cmb.2016.0061>

Johnston-Monje, D.[†], **Lundberg, D. S.**[†], Lazarovits, G., Reis, V. M., & Raizada, M. N. (2016). Bacterial populations in juvenile maize rhizospheres originate from both seed and soil. *Plant and Soil*, 405(1-2), 337–355. <https://doi.org/10.1007/s11104-016-2826-0> [OA]

Tennessen, K.[†], Andersen, E., Clingenpeel, S., Rinke, C., **Lundberg, D. S.**, Han, J., Dangl, J. L., Ivanova, N., Woyke, T., Kyrpides, N., & Pati, A. (2016). ProDeGe: a computational protocol for fully automated decontamination of genomes. *The ISME Journal*, 10(1), 269–272.
<https://doi.org/10.1038/ismej.2015.100> [OA]

2015

Lebeis, S. L.*[†], Paredes, S. H.*[†], **Lundberg, D. S.***, Breakfield, N., Gehring, J., McDonald, M., Malfatti, S., Glavina del Rio, T., Jones, C. D., Tringe, S. G., & Dangl, J. L.[†] (2015). Salicylic acid modulates colonization of the root microbiome by specific bacterial taxa. *Science*, 349(6250), 860–864.
<https://doi.org/10.1126/science.aaa8764> [OA]

Co-first contribution: Helped plan study and collect samples. Isolated root bacteria for experiments and led the design and organization of the synthetic community, as well as the calcined-clay system in which it was applied. Developed the system for amplicon-based measurement of bacterial density. Edited manuscript.

2014

Argüeso, C., Huot, B., Kim, P., **Lundberg, D. S.**, Halane, M., Serrano, I., Innes, R., & Mudgett, M. B. (2014). XVI Congress on Molecular Plant-Microbe Interactions Meeting Report. *Molecular Plant-Microbe Interactions: MPMI*, 27(11 Suppl), S1–S5. <https://doi.org/10.1094/MPMI-27-11-S1> [OA, Meeting Report]

Yourstone, S. M.[†], **Lundberg, D. S.**, Dangl, J. L., & Jones, C. D. (2014). MT-Toolbox: improved amplicon sequencing using molecule tags. *BMC Bioinformatics*, 15, 284.
<https://doi.org/10.1186/1471-2105-15-284> [OA]

Wagner, M. R.[†], **Lundberg, D. S.**, Coleman-Derr, D., Tringe, S. G., Dangl, J. L., & Mitchell-Olds, T. (2014). Natural soil microbes alter flowering phenology and the intensity of selection on flowering time in a wild *Arabidopsis* relative. *Ecology Letters*, 17(6), 717–726. <https://doi.org/10.1111/ele.12276> [OA]

2013

Lundberg, D. S.*, Yourstone, S.*[†], Mieczkowski, P., Jones, C. D., & Dangl, J. L.[†] (2013). Practical innovations for high-throughput amplicon sequencing. *Nature Methods*, 10(10), 999–1002.
<https://doi.org/10.1038/nmeth.2634>

Co-first contribution: Conceived wet-bench methods with help from PM, CDJ and JLD. Designed and performed experiments with help from PM. Analyzed sequence data with help from SY. Wrote the manuscript with help from all authors.

2012

Lundberg, D. S.*, Lebeis, S. L.*[†], Paredes, S. H.*[†], Yourstone, S.*[†], Gehring, J., Malfatti, S., Tremblay, J., Engelbrektson, A., Kunin, V., Del Rio, T. G., Edgar, R. C., Eickhorst, T., Ley, R. E., Hugenholtz, P., Tringe, S. G., & Dangl, J. L.[†] (2012). Defining the core *Arabidopsis thaliana* root microbiome. *Nature*, 488(7409), 86–90. <https://doi.org/10.1038/nature11237> [OA]

Co-first contribution: Designed the project with help from SLL and JLD. Set up experiments and organized construction of the sequencing libraries with help of SLL. Harvested samples and prepared DNA for sequencing with help of SLL, SHP and JG. Created and managed the data analysis pipeline with help from SHP, SY, and RE. Analyzed data and created figures with SLL, SHP, SY, JG, and JLD. Wrote the manuscript with SLL, SHP, and JLD.

2008

Goel, A. K., **Lundberg, D. S.**, Torres, M. A., Matthews, R., Akimoto-Tomiyama, C., Farmer, L., Dangl, J. L., & Grant, S. R.[†] (2008). The *Pseudomonas syringae* type III effector HopAM1 enhances virulence on water-stressed plants. *Molecular Plant-Microbe Interactions: MPMI*, 21(3), 361–370.
<https://doi.org/10.1094/MPMI-21-3-0361> [OA]

INTELLECTUAL PROPERTY

2022

Patent application filed for dry particle dispensers (via Max Planck Innovation). US See tech offerings: <https://www.max-planck-innovation.com/technology-offers/technology-offer/flipdroppy-laboratory-dispenser-for-solid-particles-powders-and-beads-2.html>

<https://www.max-planck-innovation.com/technology-offers/technology-offer/flipdroppy-household-dispenser-for-powders-and-granular-food-2.html>

And video demonstration: <https://twitter.com/DerekSeveri/status/1296033075672080384?s=20>

EXAMPLES OF FUN / SOCIAL MEDIA SCIENCE CONTRIBUTIONS

Balancing a centrifuge: <https://twitter.com/DerekSeveri/status/1087741624854241280?s=20>

Using a robot to plant seeds: <https://www.youtube.com/watch?v=AleIF-L8ZMU&feature=youtu.be>