



Curriculum Vitae

Prof. Dr. Ian T. Baldwin



picture by Tristan Vostry

Born

June 27, 1958, Ann Arbor, Michigan, USA

Academic education and degrees

- 1981 **Dartmouth College**, Hanover, New Hampshire, B.A. Biology (cum laude)
- 1989 **Cornell University**, Ph.D. in Chemical Ecology, Department of Neurobiology and Behavior, Ithaca, New York, Advisors: Thomas Eisner and Jerrold Meinwald

Scientific and academic positions

- 2021- **WiMi research group leader, Max Planck Institute for Chemical Ecology**
- 1996 – present **Founding Director, Max Planck Institute for Chemical Ecology, Jena, Germany**
- 1999 - present Adjunct Professor, Friedrich Schiller University, Jena, Germany
- 2000 - present Adjunct Professor, Brigham Young University, Provo, UT, USA
- 2011 - 2020 **Senior editor of *eLife***, Cambridge, UK
- 2012 - present Member of the German Centre for Integrative Biodiversity Research (iDiv), Halle, Leipzig, Germany
- 2005 - 2009 Affiliated Professor, Royal Veterinary and Agricultural University of Denmark
- 2005 - 2009 Adjunct Professor, Department of Ecology and Evolutionary Biology, Cornell University, Ithaca, NY, USA
- 2003 - 2009 Adjunct Scientist, Boyce Thompson Institute for Plant Research, Ithaca, NY, USA
- 2002 - 2007 **Founder and Director, International Max Planck Research School**, Jena, Germany
- 2002 - 2005 Managing Director, Max Planck Institute for Chemical Ecology, Jena, Germany
- 2002 - 2008 Co-Founder and Director, Virtual Institute for Biotic Interactions, Jena, Germany
- 1996 - 1998 **Professor, Department of Biology, SUNY Buffalo, NY, USA**
- 1994 - 1996 Associate Professor, Department of Biology, SUNY Buffalo, NY, USA
- 1989 - 1994 Assistant Professor, Department of Biology, SUNY Buffalo, NY, USA

Scientific awards

2019	ISI's 2019, 2018, 2017, 2016, 2015 World's Most Influential Scientific Minds, Thomson Reuters
2016	Elected fellow, American Association for the Advancement of Science (AAAS)
2014	Elected Member of the European Molecular Biology Organization (EMBO)
2014	Jean-Marie Delwart Award for Chemical Ecology
2013	Elected Member of the National Academy of Sciences (USA)
2013	Gewähltes Mitglied der Nationalen Akademie der Wissenschaften Leopoldina
2012 – 2017	European Research Council (ERC) Senior Researcher Award
2009	Tansley Lecture at the British Ecological Society Annual Meeting 2009
2001	Member of the Berlin-Brandenburg Academy of Sciences and Humanities
1998	International Society for Chemical Ecology , Silverstein-Simeone Award
1991 - 1996	NSF Presidential Young Investigator Award
1985 - 1988	A.D. White Graduate Fellowship, Cornell University
1985 - 1988	National Science Foundation , Predoctoral Fellowship Award
1980	Florence Fletcher Botany Prize, Dartmouth College

Scientific Service

Journals:

2019 - present	Editorial board, Annual Review of Plant Biology
2011 - 2020	Senior Editor, eLife
2010 - present	Associate Editor, Journal of Integrative Plant Biology
2006 - 2008	Board of Editors, Chemoecology
2001 - 2003	Associate Editor, Ecological Studies Series
2000 - 2008	Associate Editor, The Plant Journal
1996 - 2001	Associate Editor, Oecologia

Advisory Boards:

2020 - 2024	CAS Center for Excellence in Biotic Interactions
1998 - 2011	MPG-Center for Information Management
2000 - 2019	Lytle Preserve, Brigham Young University
2000 - 2006	Wissenschaftskolleg, Berlin
2001 - 2011	Swiss NSF Priority Program "Plant Survival in Natural and Agricultural Ecosystems" Priority Program "Biological radiations"
2002 - 2008	Chairman, MPG-Forschungsperspektiven Commission (Future Research Perspectives of the MPG)
2002 - 2008	SNF (CH) Priority Program "Plant Survival in Natural and Agricultural Ecosystems"
2002 - 2008	Institute of the Chemistry and Dynamics of the Geosphere, Jülich
2002 - 2004	Chinese Academy of Sciences, Tibetan Plateau Research Institute
2004 - 2010	DFG Priority Program "Trophic interactions and dynamics of communities"

2004 - 2006	Minerva Center for Arid Ecosystems Research, Hebrew University
2005 - 2011	Max Planck Digital Library
2005 - 2008	Wissenschaftlichen Programmbeirat Umweltforschung, FZ Jülich
2010- 2014	Rapporteur, Commission for the oversight of all IMPRSs of the Max-Planck-Society
2011 - 2016	Copenhagen Plant Science Centre
2017	Minerva Center of Movement Ecology at the Hebrew University of Jerusalem
2020 - 2024	CAS Center for Excellence in Biotic Interactions (2020 - 2024)
<u>MPG – Director searches</u>	MPI for Geo-Anthropology, Jena (Founding commission) MPI for Infection Biology (1 director) MPI for Evolutionary Biology, Ploen (3 directors) MPI Molecular Plant Physiology, Golm (2 directors) MPI for Marine Microbiology (2 directors) MPI Plant Breeding Research, Cologne (4 directors) MPI Terrestrial Microbiology, Marburg (2 directors) MPI Ornithology, Seewiesen (3 directors) MPI Limnology, Plön (3 directors) MPI Molecular Genetics, Berlin MPI Biogeochemistry, Jena (2 directors) MPI in Florida, USA (3 directors) MPI for Ornithology, Radolfzell (2 directors) MPI for Economics (2 directors) Berufungskommission für Gruppenleiter "Biodiversity", MPis Köln und Marburg Selbstständige Nachwuchsgruppen MPG (4 competitions) Selbstständige Nachwuchsgruppen Jagiellonian University, Krakow, MPG (2011) Selbstständige Nachwuchsgruppen, Biodiversity Research, MPG (2009-11)
<u>International conferences organized</u>	
Feb 2005	MPG Symposium "New Directions in Plant-Insect Interactions"
Aug 2005	Chairman: Gordon Research Conference on Floral and Vegetable Volatiles"
Mar 2009	Max Planck Symposium on "Evolutionary Biology"
Student training	
<u>PhD Students:</u>	5 current PhD students: Rishav Ray, Julia Bing, Sven Heiling, Pooja Snehrashmi Mehta, Caiqiong Yang 71 Ph.D. students supervised with theses completed and defended:
2021	Lucas Cortes
2020	Henrique Valim, Erica Mc Gale
2019	Maitree Pradham
2018	Christoph Bruetting, Youngsung Joo, Xiang Li, Ming Wang
2017	Van Thi Lu, Nora Adam, Zhihao Ling, Ivan David Meza Canales, Thomas Brockmoeller
2016	Spoorthi Poreddy, Rakesh Santhanam, Dapeng Li
2015	Martin Schaefer, Machado Ricardo
2014	Felipe Yon, Michael Stitz, Mariana Stanton, Variluska Fragoso, Arne Weinhold
2013	Lynn Ullmann-Zeunert, Melkamu Woldemariam, Danny Kessler, Truong Son Dinh, Dorothea Meldau, Stefan Schuck, Jyotasana Gulati, Pavan Kumar

	2012	Stefan Meldau, Alexander Weinhold, Maria Heinrich, Meredith Schuman, Tohir Bozorov, Mario Kallenbach
	2011	Arjen van Doorn, Dahai Yang, Hendrik Wünsche, Paola Gilardoni, Christian Hettenhausen
	2010	Navaporn Onkokesung, Markus Hartl, Samir Ansour
	2009	Sirsha Mitra, Harleen Kaur, Long Hoa Hoang
	2008	Anja Paschold, Shree Pandey, Jens Schwachtje, Jinsong Wu, Beatrice Berger
	2007	Caroline von Dahl, Anke Steppuhn, Silvia Schmidt, Jianqiang Wu, Channabasavangowda Rayapuram
	1996 - 2006	Jin-Ho Kang (2006); Claudia Voelckel (2004); Jorge Zavala (2004); Dominik Schmidt (2004); Rayko Halitschke (2004); Matthias Held (2003), Catherine A. Preston (2003) André Keßler (2002), Ursula Schittko (2000), Thomas Ohnmeiss (1996),
	<u>Prizes of PhD students</u>	Five PhD students André Kessler, Rayko Halitschke, Jianqiang Wu, Shree Prakash Pandey and Meredith Schuman have won the MPG Otto Hahn Medal . Three PhD students Claudia Voelckel (2005), Shree Pandey (2009) and Dapeng Li (2017) were awarded the Beutenberg Campus Award for best Ph.D dissertation
	<u>MA and BA students</u>	61 MA, Diploma and BA theses completed Konrad Burkard (2020), Yang Wang (2018), Marycolette Ezediokpu, (2018), Christoph Kreitzer (2016), Nam Thi Hoang Nguyen (2015), Yuji Cai (2015), Thomas Fabisch (2015), Karolin Tröbs (2015), Nabin Pahari (2015), Chuan Shi (2015), Ali Nawaz (2014), Bharath Ramraj (2014), Julia Kästner (2013), Nina Alejandro Perez (2013), Jasmin Herden (2013), Christoph Brütting (2012), Janet Grabengiesser (2012), Maria del Pilar Bonilla (2012), Wencke Walter (2011), Sanosh JKhanal (2011), Christine Lembke (bachelor thesis) (2011), Franziska Eberl, (bachelor thesis) (2011), Maria Knyrim (bachelor thesis) (2011), Adriana Prehl (2010), Christine Fischer (2010), Sven Heiling (2010), Martin Schaefer (2010), Marcus Horn (2010), Holger Merker (2009); Lynn Ullmann (2009), Michael Stitz (2009), Yvon Stampnik, (bachelor thesis) (2009), Alexander Weinhold (2008), Melanie Skibbe (2008), Evelyn Körner (2008), Cornelia Linse (2008), Christian Hettenhausen (2007), Tina Riedel (2007), Celia Diezel (2007), Dirk Link (2006), Stefan Meldau (2006), Hendrik Wuensche (2005), Anja Paschold (2004), Ben Bubner (2003), Rainer Saedler (2002), Jens Schwachtje (2002), Caroline von Dahl (2002), Sybille Schmidt (2000), Claudia Voelckel (2000), Elisabeth Pohlson (2000), Grit Glawe (2000), Romy Becker (1999), Rayko Halitschke (1999), Catherine A. Preston (1996), Gladys Lynds (1996), Neda Diab (1995), Mike Karb (1995), Eric Schmelz (1995), Laura Morse (1994), Michael Euler (1994)
	List of publications	
		Total number of publications – 528 (January 2022)
	Google scholar	http://scholar.google.de/citations?user=MVeVpjUAAAAJ&hl=de
	Orcid	http://orcid.org/0000-0001-5371-2974
	Web of science	http://www.researcherid.com/rid/K-1809-2013
		Researcher ID: K-1809-2013 Hirsch (h) factor: 121 (Google scholar); 98 (researcherid based on 480 publications) Ranked 8th of 113,961 researchers in Plant Biology* *Ioannidis JPA, et al. (2020) PLoS Biol 18(10): e3000918. https://doi.org/10.1371/journal.pbio.3000918

2022

- 1 Chen,Y., Huang, J., Wei, J. , Liu, X., Lu, J., Baldwin, I.T., Lou, Y., Li, R. (2022) Low-level cadmium exposure influences-rice resistance-to herbivores by priming jasmonate signaling.**Environmental and Experimental Botany** 194, 104741
doi: [10.1016/j.envexpbot.2021.104741](https://doi.org/10.1016/j.envexpbot.2021.104741)

- 2 Bai, Y., Yang,C., Halitschke,R., Paetz, C., Kessler, D., Burkard, K., Gaquerel, E., Baldwin, I.T., Li, D. (2022) Natural history–guided omics reveals plant defensive chemistry against leafhopper pests. **Science** 375, eabm2948 (2022). doi: 10.1126/science.abm2948.

Related to:

European Patent Application number: EP 21 217 268.8

United States Provisional Patent Application No.US 63/293,193

2021

- 1 Heiling, S., Cortés Llorca, L., Li, J., Gase, K., Schmidt, A., Schaefer, M., Schneider, B., Halitschke, R., Gaquerel, E., Baldwin, I. T. (2021). Specific decorations of 17-hydroxygeranyllinalool diterpene glycosides solve the autotoxicity problem of chemical defense in *Nicotiana attenuata*. **The Plant Cell**.
doi:[10.1093/plcell/koab048](https://doi.org/10.1093/plcell/koab048).

- 2 Li, J., Halitschke, R., Li, D., Paetz, C., Su, H., Heiling, S., Xu, S., Baldwin, I. T. (2021). Controlled hydroxylations of diterpenoids allow for plant chemical defense without autotoxicity. **Science**, 371(6526), 255-260. doi:10.1126/science.abe4713.

- 3 Xu, J., Wang, X., Zu, H., Zeng, X., Baldwin, I. T., Lou, Y., Li, R. (2021). Molecular dissection of rice phytohormone signaling involved in resistance to a piercing-sucking herbivore. **New Phytologist**. doi:10.1111/NPH.17251.

- 4 Figon, F., Baldwin, I. T., Gaquerel, E. (2021). Ethylene is a local modulator of jasmonate-dependent phenolamide accumulation during *Manduca sexta* herbivory in *Nicotiana attenuata*. **Plant, Cell and Environment**, 44(3), 964-981.
doi:[10.1111/pce.13955](https://doi.org/10.1111/pce.13955).

- 5 He, J., Halitschke, R., Baldwin, I.T., Schuman, M. C. (2021). Natural variation in linalool metabolites: One genetic locus, many functions? **Journal of Integrative Plant Biology**. doi:[10.1111/jipb.13104](https://doi.org/10.1111/jipb.13104).

- 6 Jamebozorgi, F. H., Yousefzadi, M., Firuzi, O., Nazemi, M., Zare, S., Chandran, J. N., Schneider, B., Baldwin, I. T., Jassbi, A. R. (2021). Cytotoxic furanosesquiterpenoids and steroids from *Ircinia mutans* sponges. **Pharmaceutical Biology**, 59(1), 575-583.
doi:[10.1080/13880209.2021.1920620](https://doi.org/10.1080/13880209.2021.1920620) .

- 7 Li, R., Jin, J., Xu, J., Wang, L. L., Li, J., Lou, Y., Baldwin, I. T. (2021). Long non-coding RNAs associate with jasmonate-mediated plant defense against herbivores. **Plant, Cell and Environment**, 44(3), 982-994. doi:[10.1111/pce.13952](https://doi.org/10.1111/pce.13952).

- 8 Joo, Y., Kim, H., Kang, M., Lee, G., Choung, S., Kaur, H., Oh, S., Choi, J. W., Ralph, J., Baldwin, I. T., Kim, S.-G. (2021). Pith-specific lignification in *Nicotiana attenuata* as a defense against a stem-boring herbivore. **New Phytologist**. doi:[10.1111/NPH.17583](https://doi.org/10.1111/NPH.17583).

2020

- 9 Bing, J., Li, X., Haverkamp, A.; Baldwin, I.T., Hansson, B.S., Knaden, M.; Yon, F. (2021). Variation in *Manduca sexta* pollination-related floral traits and reproduction in a wild tobacco plant. **Frontiers in Ecology and Evolution** 9, 680463. doi: [10.3389/fevo.2021.680463](https://doi.org/10.3389/fevo.2021.680463)
- 10 He, J., Halitschke, R., Schuman, M.C., Baldwin, I.T. (2021). Light dominates the diurnal emissions of herbivore-induced volatiles in wild tobacco. **BMC Plant Biology** 21, 401.
- 11 Lee, G.; Joo, Y.; Baldwin, I.T.; Kim, S.-G. (2021). Tissue-specific systemic responses of the wild tobacco *Nicotiana attenuata* against stem-boring herbivore attack. **Journal of Ecology and Environment** 45, 15.
- 12 Pradhan, M., Rocha, C., Halitschke, R., Baldwin, I.T., Pandey, S. P. (2021) microRNA390 modulates *Nicotiana attenuata*'s tolerance response to *Manduca sexta* herbivory. **Plant Direct** 5 (10), e350. doi: [10.1002/pld3.350](https://doi.org/10.1002/pld3.350)
- 13 Rahman, J., Baldwin, I.T., Gase, K. (2021) California TRV-based VIGS vectors mediate gene silencing at elevated temperatures but with greater growth stunting. **BMC Plant Biology** 21, 553.
- 1 Cortés Llorca, L., Li, R., Yon, F., Schäfer, M., Halitschke, R., Robert, C., Kim, S.-G., Baldwin, I. T. (2020). ZEITLUPE facilitates the rhythmic movements of *Nicotiana attenuata* flowers. **The Plant Journal**, 103(1), 308-322. doi:[10.1111/tpj.14732](https://doi.org/10.1111/tpj.14732).
- 2 Figon, F., Baldwin, I. T., Gaquerel, E. (2020). Ethylene is a local modulator of jasmonate-dependent phenolamide accumulation during *Manduca sexta* herbivory in *Nicotiana attenuata*. **Plant, Cell and Environment**. doi:[10.1111/pce.13955](https://doi.org/10.1111/pce.13955).
- 3 Guo, H., Lackus, N., Köllner, T. G., Li, R., Bing, J., Wang, Y., Baldwin, I. T., Xu, S. (2020). Evolution of a novel and adaptive floral scent in wild tobacco. **Molecular Biology and Evolution**, 37(4), 1090-1099. doi:[10.1093/molbev/msz292](https://doi.org/10.1093/molbev/msz292)
- 4 Li, R., Jin, J., Xu, J., Wang, L. L., Li, J., Lou, Y., Baldwin, I. T. (2020). Long non-coding RNAs associate with jasmonate-mediated plant defense against herbivores. **Plant, Cell and Environment**. doi:[10.1111/pce.13952](https://doi.org/10.1111/pce.13952)
- 5 Li, D., Halitschke, R., Baldwin, I. T., Gaquerel, E. (2020). Information theory tests critical predictions of plant defense theory for specialized metabolism. **Science Advances**, 6(24): eaaz0381. doi:[10.1126/sciadv.aaz0381](https://doi.org/10.1126/sciadv.aaz0381)
- 6 Li, S., Joo, Y., Cao, D., Li, R., Lee, G., Halitschke, R., Baldwin, G., Baldwin, I. T., Wang, M. (2020). Strigolactone signaling regulates specialized metabolism in tobacco stems and interactions with stem-feeding herbivores. **PLoS Biology**, 18(8): e3000830. doi:[10.1371/journal.pbio.3000830](https://doi.org/10.1371/journal.pbio.3000830)
- 7 Kang, M., Ahn, H., Rothe, E., Baldwin, I. T., Kim, S.-G. (2020). A robust genome-editing method for wild plant species *Nicotiana attenuata*. **Plant Biotechnology Reports**, 14, 585-598. doi:[10.1007/s11816-020-00634-5](https://doi.org/10.1007/s11816-020-00634-5)
- 8 McGale, E., Valim, H., Mittal, D., Morales Jimenez, J., Halitschke, R., Schuman, M. C., Baldwin, I. T. (2020). Determining the scale at which variation in a single gene changes population yields. **eLife**, 9: e53517. doi:[10.7554/eLife.53517](https://doi.org/10.7554/eLife.53517)

- 9 Pradhan, M., Pandey, P., Baldwin, I. T., Pandey, S. P. (2020). Argonaute4 modulates resistance to *Fusarium brachygibbosum* infection by regulating jasmonic acid signaling. **Plant Physiology**, 184, 1128-1152. doi:[10.1104/pp.20.00171](https://doi.org/10.1104/pp.20.00171)
- 10 Tseng, Y.-H., Rouina, H., Groten, K., Rajani, P., Furch, A. C. U., Reichelt, M., Baldwin, I. T., Nataraja, K. N., Shaanker, R. U., Oelmüller, R. (2020). An endophytic *Trichoderma* strain promotes growth of its hosts and defends against pathogen attack. **Frontiers in Plant Science**, 11: 573670. doi:[10.3389/fpls.2020.573670](https://doi.org/10.3389/fpls.2020.573670)
- 11 Shen, G., Liua, N., Zhang, J., Xu, Y., Baldwin, I. T., Wu, J. (2020). *Cuscuta australis* (dodder) parasite eavesdrops on the host plants' FT signals to flower. **Proceedings of the National Academy of Sciences of the United States of America**, 15(37), 23125-23130. doi:[10.1073/pnas.2009445117](https://doi.org/10.1073/pnas.2009445117)
- 12 Valim, H., Dalton, H., Joo, Y., McGale, E., Halitschke, R., Gaquerel, E., Baldwin, I. T., Schuman, M. C. (2020). TOC1 in *Nicotiana attenuata* regulates efficient allocation of nitrogen to defense metabolites under herbivory stress. **New Phytologist**, 228(4), 1227-1242.
- 13 Xu, S., Kreitzer, C., McGale, E., Lackus, N., Guo, H., Köllner, T. G., Schuman, M. C., Baldwin, I. T., Zhou, W. (2020). Allelic differences of clustered terpene synthases contribute to correlated intraspecific variation of floral and herbivory-induced volatiles in a wild tobacco. **New Phytologist**, 228(3), 1083-1096. doi:[10.1111/nph.16739](https://doi.org/10.1111/nph.16739).
- 14 Zou, Y., Li, R., Baldwin, I. T. (2020). ZEITLUPE is required for shade avoidance in the wild tobacco *Nicotiana attenuata*. **Journal of Integrative Plant Biology**, 62(9), 1341-1351. doi:[10.1111/jipb.12880](https://doi.org/10.1111/jipb.12880)
- 1 Backmann, P., Grimm, V., Jetschke, G., Lin, Y., Vos, M., Baldwin, I. T., van Dam, N. M. (2019). Delayed chemical defense: Timely expulsion of herbivores can reduce competition with neighboring plants. **The American Naturalist**, 193(1), 125-139. doi:10.1086/700577.
- 2 Baldwin, I. T. (2019). What five insects told us about how a native plant copes with real-world problems. **Comptes Rendus Biologies**, 342(7-8), 263-265. doi:10.1016/j.crv.2019.09.018 .
- 3 Guo, H., Halitschke, R., Wielsch, N., Gase, K., Baldwin, I. T. (2019). Mate selection in self-compatible wild tobacco results from coordinated variation in homologous self-incompatibility genes. **Current Biology**, 27(12), 2020-2030. doi:10.1016/j.cub.2019.05.042.
- 4 Haverkamp, A., Li, X., Hansson, B. S., Baldwin, I. T., Knaden, M., Yon, F. (2019). Flower movement balances pollinator needs and pollen protection. **Ecology**, 100(1): e02553. doi:10.1002/ecy.2553.
- 5 He, J., Fandino, R. A., Halitschke, R., Luck, K., Köllner, T. G., Murdock, M. H., Ray, R., Gase, K., Knaden, M., Baldwin, I. T., Schuman, M. C. (2019). An unbiased approach elucidates variation in (S)-(+)-linalool, a context-specific mediator of a tri-trophic interaction in wild tobacco. **Proceedings of the National Academy of Sciences of the United States of America**. 116(29), 14651-14660. doi:10.1073/pnas.1818585116.

- 6 Joo, Y., Goldberg, J. K., Chretien, L., Kim, S.-G., Baldwin, I. T., Schuman, M. C. (2019). The circadian clock contributes to diurnal patterns of plant indirect defense in nature. **Journal of Integrative Plant Biology**, 61(8), 924-928. doi:10.1111/jipb.12725.
- 7 Joo, Y., Schuman, M. C., Goldberg, J. K., Wissgott, A., Kim, S.-G., Baldwin, I. T. (2019). Herbivory elicits changes in green leaf volatile production via jasmonate signaling and the circadian clock. **Plant, Cell and Environment**, 42(3), 972-982. doi:10.1111/pce.13474.
- 8 Kessler, D., Bing, J., Haverkamp, A., Baldwin, I. T. (2019). The defensive function of a pollinator-attracting floral volatile. **Functional Ecology**, 33(7), 1223-1232. doi:10.1111/1365-2435.13332.
- 9 Ling, Z., Brockmüller, T., Baldwin, I. T., Xu, S. (2019). Evolution of alternative splicing in eudicots. **Frontiers in Plant Science**. 10: 707. doi:10.3389/fpls.2019.00707.
- 10 Mindt, E., Wang, M., Schäfer, M., Halitschke, R., Baldwin, I. T. (2019). Quantification of blumenol derivatives as leaf biomarkers for plant-AMF association. **Bio-protocol**, 9(14): e3301. doi:10.21769/BioProtoc.3301.
- 11 Ray, R., Li, D., Halitschke, R., Baldwin, I. T. (2019). Using natural variation to achieve a whole-plant functional understanding of the responses mediated by jasmonate signaling. **The Plant Journal**. doi:10.1111/tpj.14331.
- 12 Santhanam, R., Menezes, R. C., Grabe, V., Li, D., Baldwin, I. T., Groten, K. (2019). A suite of complementary biocontrol traits allows a native consortium of root-associated bacteria to protect their host plant from a fungal sudden-wilt disease. **Molecular Ecology**, 28(5), 1154-1169. doi:10.1111/mec.15012.
- 13 Song, N., Ma, L., Wang, W., Sun, H., Wang, L., Baldwin, I. T., Wu, J. (2019). An ERF2-like transcription factor regulates production of the defense sesquiterpene capsidiol upon *Alternaria alternata* infection. **Journal of Experimental Botany**, 70(20), 5895-5908. doi:10.1093/jxb/erz327.
- 14 Song, Y., Wang, M., Zeng, R., Groten, K., Baldwin, I. T. (2019). Priming and filtering of antiherbivore defences among *Nicotiana attenuata* plants connected by mycorrhizal networks. **Plant, Cell and Environment**, 42(11), 2945-2961. doi:10.1111/pce.13626.
- 15 Valim, H., McGale, E., Yon, F., Halitschke, R., Fragoso, V., Schuman, M. C., Baldwin, I. T. (2019). The clock gene TOC1 in shoots, not roots, determines fitness of *Nicotiana attenuata* under drought. **Plant Physiology**, 181(1), 305-318. doi:10.1104/pp.19.00286.
- 16 Zou, Y., Li, R., Baldwin, I. T. (2019). ZEITLUPE is required for shade avoidance in the wild tobacco *Nicotiana attenuata*. **Journal of Integrative Plant Biology**. doi:10.1111/jipb.12880.

2018

- 1 Adam, N., Kallenbach, M., Meldau, S., Veit, D., van Dam, N., Baldwin, I. T., Schuman, M. C. (2018). Functional variation in a key defense gene structures herbivore communities and alters plant performance. **PLoS One**, 13(6): e0197221. doi:10.1371/journal.pone.0197221.
- 2 Brütting, C., Crava, M. C., Schäfer, M., Schuman, M. C., Meldau, S., Adam, N., Baldwin, I. T. (2018). Cytokinin transfer by a free-living mirid to *Nicotiana attenuata* recapitulates a strategy of endophytic insects. **eLife**, 7: e36268. doi:10.7554/eLife.36268.

- 3 Ha, J., Kim, J., Kim, S., Sim, H., Lee, G., Halitschke, R., Baldwin, I. T., Kim, J., Park, C. (2018). Shoot phytochrome B modulates reactive oxygen species homeostasis in roots via abscisic acid signaling in Arabidopsis. **The Plant Journal**, 94(5), 790-798. doi:10.1111/tpj.13902.
- 4 Haverkamp, A., Hansson, B. S., Baldwin, I. T., Knaden, M., Yon, F. (2018). Floral trait variations among wild tobacco populations influence the foraging behavior of hawkmoth pollinators. **Frontiers in Ecology and Evolution**, 6:19 doi:10.3389/fevo.2018.00019.
- 5 Joo, Y., Schuman, M. C., Goldberg, J. K., Kim, S.-G., Yon, F., Brütting, C., Baldwin, I. T. (2018). Herbivore-induced volatile blends with both "fast" and "slow" components provide robust indirect defence in nature. **Functional Ecology**, 32(1), 136-149. doi:10.1111/1365-2435.12947.
- 6 Li, J., Schuman, M. C., Halitschke, R., Li, X., Guo, H., Grabe, V., Hammer, A., Baldwin, I. T. (2018). The decoration of specialized metabolites influences stylar development. **eLife**, 7: e38611. doi:10.7554/eLife.38611.
- 7 Li, R., Cortés Llorca, L., Schuman, M. C., Wang, Y., Wang, L. L., Joo, Y., Wang, M., Giddings Vassão, D., Baldwin, I. T. (2018). ZEITLUPE in the roots of wild tobacco regulates jasmonate-mediated nicotine biosynthesis and resistance to a generalist herbivore. **Plant Physiology**, 177(2), 833-846. doi:10.1104/pp.18.00315.
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	5	Rossiter, M., Schultz, J., <u>Baldwin, I. T.</u> (1988). Relationships among defoliation, red oak phenolics, and gypsy moth growth and reproduction. Ecology , 69, 267-277.
1985	1	<u>Baldwin, I. T.</u> (1987). A model system for induced plant defenses. New York's Food & Life Sciences Quarterly , 17(4), 21-22.
	2	<u>Baldwin, I. T.</u> , Schultz, J. C., Ward, D. (1987). Patterns and sources of leaf tannin variation in yellow birch (<i>Betula allegheniensis</i>) and sugar maple (<i>Acer saccharum</i>). Journal of Chemical Ecology , 13(5), 1069-1078.
1984	1	Rashid, K. A., <u>Baldwin, I. T.</u> , Babish, J. G., Schultz, J. C., Mumma, R. O. (1985). Mutagenicity tests with gallic and tannic acid in the <i>Salmonella</i> / Mammalian microsome assay. Journal of Environmental Science and Health , 20(2), 153-165.
	2	<u>Baldwin, I. T.</u> , Schultz, J. C. (1984). Damage- and communication-induced changes in yellow birch leaf phenolics. Proc. N. A. Forest Biology Workshop , 8, 25-34.
1983	1	<u>Baldwin, I. T.</u> , Schultz, J. C. (1984). Tannins lost from sugar maple (<i>Acer saccharum</i> marsh) and yellow birch (<i>Betula allegheniensis</i> britt.) leaf litter. Soil Biology and Biochemistry , 16(4), 421-422.
	1	<u>Baldwin, I. T.</u> , Olson, R. K., Reiners, W. A. (1983). Protein-binding phenolics and the inhibition of nitrification in subalpine balsam fir soils. Soil Biology and Biochemistry , 15(4), 419-423.
	2	<u>Baldwin, I. T.</u> , Schultz, J. C. (1983). Rapid changes in tree leaf chemistry induced by damage: evidence for communication between plants. Science , 221, 277-279.
1982	3	Schultz, J. C., <u>Baldwin, I. T.</u> (1983). Changes in tree quality in response to defoliation. Canada/United States Spruce Budworms Program (CANUSA) Proceedings , 83-86
	1	Schultz, J. C., <u>Baldwin, I. T.</u> (1982). Oak leaf quality declines in response to defoliation by Gypsy moth larvae. Science , 217, 149-151. [ITB002]
1981	2	Schultz, J. C., Nothnagle, P. J., <u>Baldwin, I. T.</u> (1982). Seasonal and individual variation in leaf quality of two northern hardwoods tree species. American Journal of Botany , 69(5), 753-759.

Books	1	Schultz, J. C., <u>Baldwin, I. T.</u> , Nothnagle, P. J. (1981). Hemoglobin as a binding substrate in the quantitative analysis of plant tannins. Journal of Agricultural and Food Chemistry , 29(4), 823-826.
		Karban, R., and I.T. Baldwin. 1997. <u>Induced Responses to Herbivory</u> . Chicago University Press.
	Patents	
	2022	European Patent Application number: EP 21 217 268.8 United States Provisional Patent Application No.US 63/293,193 Bai, Y., Li, D., Baldwin, I.T., Yang, C., Halitschke, R., Paetz, C. A Novel GVL-phenolamide: biosynthesis and function in protecting plants from herbivore attack.
	2018	US Patent App. 16/970,608 Baldwin, I.T., Halitschke, R., Wang, M., Li, D., Schäfer, M., McGale, E., Heiling, S. Leaf markers for root colonization by arbuscular mycorrhizal fungi.
On-line lectures		
	1	iBioSeminar: <u>A Short Biased History of an Interdisciplinary Field</u> , August 2016 https://www.ibiology.org/plant-biology/studying-plants-ecological-interactions-genomics-era-story-nicotiana-attenuata/#part-1
	2	iBioSeminar: <u>Nicotiana attenuata's Responses to Attack from a Nicotine-tolerant Herbivore</u> , August 2016 https://www.ibiology.org/plant-biology/studying-plants-ecological-interactions-genomics-era-story-nicotiana-attenuata/#part-2
	3	iBioSeminar: <u>Plant's Perspective on Seeds, Sex and Microbes</u> , December 2016 https://www.ibiology.org/plant-biology/studying-plants-ecological-interactions-genomics-era-story-nicotiana-attenuata/#part-3
	4	iBioMagazine: <u>Making Scientific Writing Painless</u> , August 2016 https://www.ibiology.org/professional-development/making-scientific-writing-painless/
	5	New Phytologist Next Gen Symposium (2017): <u>On becoming(and remaining) a plant scientist in the genomics era</u> : https://youtu.be/dH1V-rmYDxQ
Invited lectures (total 239, listed are since 2014; Zoom lectures are excluded)		
	2019	Regulatory Oxylipins – International Meeting, Ghent, BE Max-Planck-Institute for Ornithology, Seewiesen, DE IBMCP, Valencia, SP CAS-70th anniversary Beijing, CN APACE, Hangzhou, CN SOL19, Jerusalem, IL Grande conférence de l'Académie des sciences, Paris, FR KWS, Einbeck, DE

2018	Jena Microbial Communication Colloquium. JSMC, Jena DE
	Ciencias da Universidade de Lisboa, Lisbon PT
	Friedrich-Schiller-Universität, 'Plant Performance under Stress', Jena, DE
	University of Saskatchewan, Saskatchewan CA
2017	Harvard University, Cambridge, MA, USA
	Carnegie Institute for Plant Biology, Stanford, CA, USA
	Gregor Mendel Institute of Molecular Plant Biology, Vienna, AT
	Institut de Biologie de l'Ecole Normale Supérieure, Paris, FR
2016	International Max Planck Research School, Jena DE
	Plants & People Conference, Golm, DE
	Korean Association of Biological Science Conference, Seoul, KR
	John Innes Center, New Phytologists Next Generation Scientists, Norwich, UK
2015	Dartmouth College, Ecology, Evolution, Ecosystems & Society Program, NH, USA
	8th Federation of the Israel Societies for Experimental Ecology, Eilat, IL
	Frontiers in Bioscience Conference, Buenos Aires, AR
	New York University, Centre for Genomics and Systems Biology, USA
2014	National University of Mexico, Mexico City, MX
	The Evolution of Host-Microbe Interactions Cell symposium, Chicago, USA
	Nanyang Technological University, School of Biological Sciences, SG
	ASPB Conference 2016, Austin, TX, USA
2013	Michigan State University, East Lansing, MI, USA
	University of Cambridge, Cambridge, UK
	IndiaBioScience Young Investigators Meeting, Gurgaon, IN
	Delwart Symposium, Brussels, BE
2012	University of Florida, Gainesville, FL, USA
	Plant Communication, Brussels, BE
	European Molecular Biology Organisation (EMBO), Heidelberg, DE
	University of Copenhagen, Copenhagen, DK
2011	University of California, Davis, CA, USA
	K S Krishnan School for Chemical Ecology, Bangalore, IN
	Institute of Science Education and Research, Kolkata, IN
	'Biology and Integrative Genomics' Seminar, Lausanne, CH
2010	University of Lausanne, Lausanne, CH
	Vienna Biocenter, Vienna, AT
	Weizmann Institute of Science, Tel Aviv, IL
	Biozentrum der Ludwig-Maximilians-Universität, Keystone Seminar Series, München, DE
2009	Plant Science Center, Zürich, CH
	Kunming Institute of Botany, CAS, Kunming, CN
	Biotechnology Institute Thurgau, Konstanz, DE
	Human Frontiers Science Program, Lugano CH
2008	Leopoldina National Academy of Sciences, Halle, DE
	Freie Universität, Haberlandt Lecture, Berlin, DE
	18th Computational Molecular Biology conference, Pittsburgh, PA, USA
	University of Utah, Salt Lake City, UT, USA
2007	RECOMB Conference, Pittsburgh, PA, USA
	Keystone Symposium, Breckenridge, CO, USA
	Max-Planck-Institute for Infection Biology, Berlin, DE

Smarty Plants	What Plants Talk About (CBC The Nature of things): https://www.youtube.com/watch?v=CrrSAc-vjG4
Kluge Pflanzen	Kluge Pflanzen - Blattgeflüster 1v4 Doku EP02 - (Part 1) https://www.youtube.com/watch?v=Qq5byTFb7-E Kluge Pflanzen - Blattgeflüster 2v4 Doku EP02 (Part 2) https://www.youtube.com/watch?v=lugWSW7QCHO Kluge Pflanzen - Blattgeflüster 3v4 Doku EP02 (Part 3) https://www.youtube.com/watch?v=pdQe8mgQ3KU Kluge Pflanzen - Blattgeflüster 4v4 Doku EP02 (Part 4) https://www.youtube.com/watch?v=Umd4RhmiDNw