

[RESUMÉ OF:

NEVIN DALE YOUNG

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EDUCATION

Ph.D. Yale University (Biology) 1984
M.S. Yale University (Biology) 1979
B.A. Indiana University (Chemistry) 1977

**PROFESSIONAL
EXPERIENCE**

Full Professor 1998-Present
University of Minnesota, Department of Plant Pathology with
joint appointment in the Department of Plant Biology;
Graduate Faculty in Applied Plant Sciences, Plant and Microbial Biology,
and Plant Pathology

Visiting Professor 2006
École National Supérieur Agronomique de Toulouse, France (ENSAT)

Distinguished McKnight Professor 2004

Director 1998-2000
University of Minnesota Plant Molecular Genetics Institute (PMGI)

Visiting Scientist 1998
National Center for Genome Resources (NCGR), Santa Fe, NM

Associate Professor 1994-1998
University of Minnesota, Department of Plant Pathology

Assistant Professor 1989-1994
University of Minnesota, Department of Plant Pathology

Research Associate 1986-1989
Cornell University, Department of Plant Breeding and Biometry

Postdoctoral Fellow 1984-1986
Cornell University, Department of Plant Pathology

**RECENT
RESEARCH
GRANTS**

Career Extramural Grants to NDY as Lead PI: ~\$32,000,000
Career Extramural Grants to NDY Research Program: ~\$10,000,000

NSF Plant Genome Program (2017-2019)
Leveraging the Medicago Hapmap to Characterize Genome-by-Genome Interactions in Nitrogen-fixing Symbiosis

NSF Plant Genome Program (2009-2017)
Medicago Hapmap as a Platform for Exploring Legume Symbioses

Minnesota Soybean Research & Promotion Council (through 2018)
Developing Cyst-Resistant Soybeans with Traditional and Molecular Techniques

NSF Biomolecular Systems Program (2010-2014)
Metabolomics and Genome Wide Association Mapping for Elucidation of Triterpene Saponin Biochemistry in Medicago

TEACHING

Sequencing Plant, Pets and Pathogens (PIPa 1902) (2017-Present)
Biotechnology, People and the Environment (CFAN 1501; 1992-Present)
Plant Genomics (PBio/PIPa 5301; 1999-2016)
Supervised Teaching Experience for Graduate Students (PIPa 8005; 1993-04)
Genetic Engineering for Plant Disease Resistance (PIPa 8200; 1996-98)
Physiological & Molecular Plant-Microbe Interactions (PIPa 5302; 1994-98)
Biotechnology and Sustainability (Agri 1000H; 1995)
Plant Disease Theory: Molecular to Cellular (PIPa 8001; 1989-93)

ADVISING

Ph.D. Students completed: 9
M.S. Students completed: 4
Post-doctoral Fellows and Research Associates: 24
Current graduate advisory committees: 6
Total career graduate student advisory committees: >50
Total career undergraduate research scholars & advisees: >50

SELECTED AWARDS

Distinguished McKnight University Professor (2004)
Departmental Faculty Mentor of the Year (1996)
Bush Foundation Program on Excellence in Teaching (1991)
National Science Foundation Postdoctoral Fellowship (1983)
Sigma Xi Fellow (1983)
Phi Beta Kappa (1977)

UNIVERSITY SERVICE

Senate Committee on Educational Policy (2015-17)
Chair, Nominations and Awards Committee (Plant Pathology) (2014-16)
Chair, CFANS Faculty Development Sub-Committee (2013-14)
Chair, Fungal Biologist Search Committee (Plant Pathology) (2012-13)
Chair, CFANS Faculty Consultative Committee (FCC) (2011-12)
Chair, Science and Outreach Committee (Plant Pathology) (2008-10)
Chair, Computational/Systems Biology Search Committee (CBS) (2008-09)
Senator, University Faculty Senate (1995-98; 2007-10)
Minnesota Supercomputer Institute (MSI) Transition Task Force (2008)
Associate Fellow, Minnesota Supercomputer Institute (2007)
Institute for Advancement of Science & Technology Task Force (2006-07)
Steering Committee, Plant Sciences Cluster (2006-07)
Chair, Fulbright Scholarship Subcommittee (2007); Member (2004-05)
University Council on Liberal Education (CLE) (2003-05)
Steering Committee, Center for Microbial & Plant Genomics (2000-03)
Chair, Plant Molecular Biology Faculty Search Committee (CBS) (2002)
Chair, Professional, Academic, and Institutional Relations (PIPa) (2000-02)
Chair, Undergraduate Biotechnology Curriculum Task Force (2000-02)
Chair, Plant Genomics Faculty Search Committee (CBS) (2000)
Director, Plant Molecular Genetics Institute (PMGI) (1998-2000)
Chair, Potato Pathologist Search Committee (Plant Pathology) (1998)
Co-Chair, Science in Agriculture undergraduate major (1997-98)
COAFES Curriculum Committee (1996-98)
Chair, Education Committee (Plant Pathology) (1994-96)
Chair: *Kellogg Foundation College of Agriculture Visioning Program* (1996)
Chair: *Cloning Plant Genes Known Only by Phenotype* conference (1994)
Faculty Council (Plant Pathology) 1994-96; 2000-02; 2008-10; 2014-16

(Resume of N. D. Young)

**INTERNATIONAL
ACTIVITIES**

Co-Chair: *Medicago* Genetics and Genomics 2016
Associate Editor, *G3 • Genes | Genomes | Genetics* (2012-2015)
Co-Chair: International *Medicago truncatula* Genome Sequencing Steering Committee (2003–11)
Scientific Advisory Board: European Union 6th Framework Programme *Grain Legumes Initiative Program (GLIP)* (2004-07)
Guest Editor, “Genome Studies” *Current Opinion in Plant Biology* (2006)
Associate Editor, *Molecular Plant-Microbe Interactions* (1999-2003)
Program Chair, International Conference on Legume Genomics & Genetics (2002)
Associate Editor, *Molecular Breeding* (1998–2000)
International Program on Genebanks and Comparative Genetics; CGIAR (1999)
United Nations-FAO/IAEA Research Coordination Group: *Application of DNA Markers for Improvement Crop Plants* (1992-96)
Tropical legume research collaborations with Asian Vegetable Research and Development Center (AVRDC, Taiwan) and International Institute for Tropical Agriculture (IITA, Nigeria) (1989-94)

International Teaching and Workshops

- Plant Genomes Day (CNRGV, Toulouse, France) (2014)
- Centro de Ciencias Genómicas (UNAM, Cuernavaca, Mexico) (2008)
- Guest Lecturer: École National Supérieur Agronomique de Toulouse (2006)
- Application of Model Species to Crop Legumes (NATO), Norwich, UK (2002)
- Plant Gene Cloning and Genomics Training Workshop, Montreal, CN (1999)
- International Course on the Structure and Manipulation of the Plant Genome (CINVESTAV), Irapuato, Mexico (1995)
- International Workshop on Bacterial Wilt, Kaoshung, Taiwan (1993)
- International Center for Genetic Engineering and Biotechnology (ICGEB) New Delhi, India (1991)
- International Institute of Tropical Agriculture (IITA), Ibadan, Nigeria (1999)

**NATIONAL
ACTIVITIES**

Scientific Advisory Board: *USDA “Oomycete-Soybean CAP”* (2013)
ARS Plant Disease Project Review Panel Manager (NP 303-11) (2011-12)
NSF Basic Research to Enable Agriculture (BREAD) Grant Review Panel (2011)
NSF Plant Genome Research Program (PGRP) Grant Review Panel (2010)
Scientific Advisory Board: *NSF Plant Genome “Genetic Resources to Dissect Gene Regulatory Networks Governing Nodule Development”* (2008-11)
Scientific Advisory Board: *NSF “Deciphering the Molecular Dialogue between the Plasma Membrane and the Nucleus of Medicago”* (2009-10)
Scientific Advisory Board: *NSF “Virtual Plant Information Network”* (2006-08)
Scientific Advisory Board: *NSF “Tomato Genome Sequencing Project”* (2006-08)
Scientific Advisory Board: *ARS/NCGR Legume Information System* (2003-11)
Cross-Legume Advances through Genomics (CATG) Steering Committee (2004)
U.S. Legume Crop Genomics Initiative Steering Committee (2002-06)
Scientific Advisory Board: *National Center for Genome Resources (NCGR)* (1998-2001)
USDA-NRI Plant Genome Competitive Grants Review Panel (1995, 1999)
USDA/ NCR-172: *Molecular Genetics of Host-Parasite Relations Involving Sedentary Endoparasitic Nematodes* (1992-98)
Soybean Genome Mapping Database Steering Committee (1992-95)

(Resume of N. D. Young)

**NOTABLE
INVITED
LECTURES**

Exploiting Medicago Structural Variation to Discover Novel Genes for Nodulation. Plant and Animal Genome Conference XXVI, Legume Genomics Workshop. San Diego, CA, January 2018

Re-sequencing the Medicago Genome Reveals the Diversity of Complex Symbiosis-Related Gene Families. Plant Genome Evolution 2015 Plenary Lecture. Amsterdam, Netherlands, September 2015

Exploring Nodulation through Genome Resequencing and Association Genetics. 7th International Conference on Legume Genomics and Genetics, Plenary Lecture, Saskatoon, SK, July 2014

Annual Reviews Conversations: Genome-Enabled Insights into Legume Biology, May 2012 (<http://itunes.apple.com/us/podcast/annual-reviews-conversations/id393569777>)

A Hapmap Platform for Genome-Wide Association Mapping in Medicago. 5th International Conference on Legume Genomics, Asilomar, CA. June 2010

Transferring Discoveries in Plant Genomics to Food Security. Keynote, Annual Meeting of the Minnesota *Sigma Xi* Honors Society, April 2009

The Genome of Medicago truncatula. Plant & Animal Genome Conference XVI, Legume Genomics Workshop, San Diego, CA. January 2008

An Integrated View of Legume Genomics. Model Legume Congress, Keynote Address, Tunis, Tunisia. March 2007

The Medicago truncatula as a Reference for Legume Genomics. American Society of Plant Biology, Plenary Lecture, Boston, MA. August 2005

Insights into Legume Polyploids with the Medicago truncatula Genome. Crop Science Society of America, Seattle, WA. November 2004

The Medicago truncatula Genome Sequencing Initiative. 2nd International Conference on Legume Genomics and Genetics, Dijon, FR. June 2004

The Past, Present and Future of Marker-Assisted Breeding. American Phytopathological Society, Milwaukee, WI. July 2002

KTCA-TV Almanac News Program. St. Paul, MN. October 2001

Governing GMOs: Developing Policy in the Face of Scientific and Public Debate. President's Sesquicentennial Series, February 2001

Resistance Genes of the NBS-LRR Family. Molecular and Cellular Biology of Soybean, Lexington, KY. August 2000

An Integrated View of Legume Genomics. Molecular Genetics of Model Legumes, Norwich, UK. June 2000

Deciphering the Language of Disease Resistance Genes. Crop Science Society of America; St. Lake City, UT. November 1999

Comparative Genomics of Plant Disease Resistance Genes. Plant & Animal Genome VII, Plenary Lecture, San Diego, CA. January 1999

Marker-Assisted Selection for Partial Disease Resistance. American Phytopathological Society (APS), Indianapolis, IN. July 1996

Genome Mapping in Legumes: Insights into Molecular Evolution and Positional Cloning. Plant Genome III, Plenary Lecture, San Diego, Jan 1995

WEBSITES:

<https://younglab.cfans.umn.edu>

The Young lab home page at the University of Minnesota

www.medicagohapmap.org

Website and database for the International *Medicago* Hapmap Initiative

**GENBANK
SUBMISSIONS**

DNA sequences: 63,981; *Protein sequences:* 115,483

Short read archive collections (SRA): 685; *Biosamples* 355

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PUBLICATIONS:

Summary Statistics (February 2018)

Total publications: 328

Refereed (125), Chapters (19), Non-Refereed (33), Abstracts (149)

Google Citation h-index = 67 (18,529 total citations)

Refereed Articles:

- Burghardt LT, Epstein B, Guhlin J, Nelson MS, Taylor MR, Young ND, Sadowsky MJ, Tiffin P** (2018) Select and re-sequence reveals relative fitness of bacterial strains in symbiotic and free-living environments. *Proc. Natl. Acad. Sci. USA*, doi/10.1073/pnas.1714246115.
- Fleagle B, Imamovic A, Toledo S, Couves M, Jensen A, Vang M, Steevens A, Young N, Sadowsky M, Martinez-Vaz B** (2018) Complete genome sequence of *Sinorhizobium meliloti* bacteriophage HMSP-1-Susan. *Genome Announcements*. (Accepted).
- Trujillo DI, Silverstein KAT, Young ND** (2018) Cross-species examination of legume signaling peptides reveals that nodule-specific PLAT domain proteins are required for nodulation. *The Plant Journal* (submitted).
- Burghardt LT, Guhlin J, Chun C, Liu J, Sadowsky MJ, Stupar RM, Young ND, Tiffin P** (2017) Host-dependent transcriptome responses to symbiont in the Legume-*Ensifer* mutualism. *Molecular Ecology* 26: 6122–6135. doi: 10.1111/mec.14285.
- Burghardt, LT, Young ND, Tiffin P** (2017) A guide to genome-wide association mapping in plants. *Current Protocols in Plant Biology* 2:22-38. doi: 10.1002/cppb.20041.
- Curtin SJ, Tiffin P, Guhlin J, Trujillo D, Burghardt LT, Atkins P, Baltes NJ, Denny R, Voytas DF, Stupar RM, Young ND** (2017) Validating GWAS candidates by characterizing genes that control quantitative variation in nodulation. *Plant Physiology* 173:921-931. doi: 10.1104/pp.16.01923.
- Guhlin J, Silverstein KAT, Zhou P, Tiffin P, Young ND** (2017) ODG: Omics database generator – a tool for generating, querying, and analyzing multi-omics databases to facilitate biological understanding. *BMC Bioinformatics* 18: 367. doi 10.1186/s12859-017-1777-7.
- Le Signor C, Aimé D, Bordat A, Belghazi M, Labas V, Gouzy J, Tiffin P, Young ND, Prospero J-M, Leprince O, Thompson RD, Buitink J, Burstin J, Gallardo K** (2017) Genome-wide association studies with proteomics data reveal genes important for synthesis, transport and packaging of globulins in legume seeds. *New Phytologist* 214:1597-1613. doi: 10.1111/nph.14500.
- Miller JR, Zhou P, Mudge J, Gurtowski J, Lee H, Ramaraj T, Walenz BP, Liu Junqi, Stupar R, Denny R, Song L, Singh N, Maron LG, McCouch SR, McCombie WR, Schatz MC, Tiffin P, Young ND, Silverstein KAT** (2017) Hybrid assembly with long and short reads improves discovery of gene family expansions. *BMC Genomics* 18:541. doi: 10.1186/s12864-017-3927-8.
- Moll KM, Zhou P, Ramaraj T, Fajardo D, Devitt NP, Sadowsky MJ, Stupar RM, Tiffin P, Miller JR, Young ND, Silverstein KAT, Mudge J** (2017) Strategies for utilizing bionano and dovetail explored through a second reference quality assembly for the legume model, *Medicago truncatula*. *BMC Genomics* 18:587 doi: 10.1186/s12864-017-3971-4.
- Zhou P, Silverstein KAT, Thiruvarangan R, Guhlin J, Denny RL, Liu J, Farmer AD, Steele KP, Stupar RM, Miller JR, Tiffin PL, Mudge J, Young ND** (2017) Exploring structural variation and gene family architecture with *de novo* assemblies of 15 *Medicago* genomes. *BMC Genomics* 18:261 doi 10.1186/s12864-017-3654-1.
- Burgarella C, Chantret N, Gay L, Prospero J-M., Bonhomme M, Tiffin P, Young ND, Ronfort, J.** (2016) Adaptation to climate variation through flowering phenology: a case study in *Medicago truncatula*. *Molecular Ecology*. 25:3397-3415. doi: 10.1111/mec.13683.

(Resume of N. D. Young)

- Young ND, Zhou P, Silverstein KAT** (2016) Exploring structural variants in environmentally-sensitive gene families. *Current Opinion in Plant Biology* **30**: 19-24, <http://dx.doi.org/10.1016/j.pbi.2015.12.012>.
- Bao Y, Kurle JE, Anderson G, Young ND** (2015) Assessing the potential of association mapping and genomic prediction for resistance to sudden death syndrome in early maturing soybean germplasm. *Molecular Breeding* **35**: 128. doi: 10.1007/s11032-015-0324-3.
- Bonhomme M, Boitart S, San Clemente H, Dumas B, Young ND, Jacquet C** (2015) Genomic signature of selective sweeps reveals adaptation of *Medicago truncatula* to root-associated microorganisms. *Molecular Biology and Evolution* **32(8)**: 2097-2110. doi: 10.1093/molbev/msv092.
- Gentzittel L, Andersen SU, Ben C, Rickauer M, Stougaard J, Young ND** (2015) Naturally occurring diversity helps to reveal genes of adaptive importance in legumes. *Frontiers in Plant Science* **6**: 269. doi: 10.3389/fpls.2015.00269.
- Kang Y, Sakuroglu M, Krom N, Stanton-Geddes J, Wang M, Lee Y-C, Young ND, Udvardi M** (2015) Genome-wide association of drought-related and biomass traits with HapMap SNPs in *Medicago truncatula*. *Plant Cell and Environment*: **38**: 1997-2011. doi: 10.1111/pce.12520.
- Martinez-Vaz B, Denny R, Young ND, Sadowsky M** (2015) An alternative approach to "Identification of Unknowns": Designing a protocol to verify the identities of nitrogen fixing bacteria. *Journal Microbiology and Biology Education* **16(2)**:247-253. doi: 10.1128/jmbe.v16i2.973.
- Bao Y, Vuong T, Meinhardt C, Tiffin P, Denny R, Chen S, Nguyen HT, Orf JH, Young ND** (2014) Potential of association mapping and genomic selection to explore PI88788 derived soybean cyst nematode resistance. *The Plant Genome* **7(3)**. doi:10.3835/plantgenome2013.11.0039.
- Bonhomme M, André O, Badis Y, Ronfort J, Burgarella C, Chantret N, Prospero J-M, Briskine R, Mudge J, Debéllé F, Navier H, Miteul H, Hajri A, Baranger A, Tiffin P, Dumas B, Pilet-Navel M-L, Young ND, Jacquet C** (2014) High density genome-wide association mapping implicates an F-box encoding gene in *Medicago truncatula* resistance *Aphanomyces euteiches*. *New Phytologist* **201(4)**:1328-1342: doi: 10.1111/nph.12611.
- Nallu S, Silverstein KAT, Zhou P, Young ND, VandenBosch KA** (2014) Patterns of divergence of a large family of nodule cysteine-rich genes in accessions of *Medicago truncatula*. *The Plant Journal* **78(4)**: 697-705. doi:10.1111/tpj.12506.
- Trujillo DI, Silverstein KAT, Young ND** (2014) Genomic characterization of the LEED..PEEDs, a gene family unique to *Medicago* lineage. *G3: Genes | Genomes | Genetics*. **4(10)** 2003-2012. doi:10.1534/g3.114.011874.
- Yoder JB, Stanton-Geddes J, Zhou P, Briskine R, Young ND, Tiffin P** (2014) Genomic signature of local adaptation to climate in *Medicago truncatula*. *Genetics* **196(4)**:1263-1275 doi: 10.1534/genetics.113.159319. (Faculty of 1000 Prime: <http://f1000.com/prime/718243310?key=K7KxwGH8X8aQ73R>)
- Paape T, Bataillon T, Zhou P, Kono T, Briskine R, Young ND, Tiffin P** (2013) Selection, genome wide fitness effects, and evolutionary rates in the model legume *Medicago truncatula*. *Molecular Ecology* **22(13)**: 3525-3538. doi: 10.1111/mec.12329.
- Stanton-Geddes J, Yoder J, Briskine R, Young ND, Tiffin P** (2013) Estimating heritability with whole-genome data. *Methods in Ecology and Evolution*: **4**: 1151-1158. doi: 10.1111/2041-210X.12129.
- Stanton-Geddes J, Paape T, Epstein B, Briskine R, Yoder, J, Mudge J, Bharti AK, Farmer AD, Zhou P, Denny R, May GD, Erlandson S, Sugawara M, Sadowsky MJ, Young ND, Tiffin P** (2013) Candidate genes and genetic architecture of symbiotic and agronomic traits revealed by whole-genome, sequence-based association genetics in *Medicago truncatula*. *PLoS ONE* **8(5)**: e65688. doi:10.1371/journal.pone.0065688.
- Sugawara M, Epstein B, Badgley B, Unno T, Xu L, Reese J, Gyaneshwar P, Denny R, Mudge J, Bharti AK, Farmer AD, May GD, Woodward JE, Médigue C, Vallenet D, Lajus A, Rouy Z,**

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- Martinez-Vaz B, Tiffin P, Young ND, Sadowsky MJ** (2013) Comparative genomics of the core and accessory genomes of 48 *Sinorhizobium* strains spanning five genospecies. *Genome Biology* **14**(2):R17. doi:10.1186/gb-2013-14-2-r17.
- Yoder JB, Briskine R, Mudge J, Farmer A, Paape T, Steele K, Weiblen GD, Bharti A, Zhou P, May GD, Young ND, Tiffin P** (2013) Phylogenetic signal variation in the genomes of the genus *Medicago* (Fabaceae). *Systematic Biology* **62**(3): 424-438. doi:10.1093/sysbio/syt009.
- Zhou P, Silverstein KAT, Gao L, Walton JD, Nallu S, Guhlin J, Young ND** (2013) Detecting small plant peptides using SPADA (Small Peptide Alignment Discovery Application). *BMC-Bioinformatics* **14**: 335. doi: 10.1186/1471-2105-14-335.
- Ashfield T, Egan AN, Pfeil BE, Chen NWG, Podicheti R, Ratnaparkhe MB, Ameline-Torregrosa C, Denny R, Cannon S, Doyle JJ, Geffroy V, Roe BA, Saghai Maroof MA, Young ND, Innes RW** (2012) Evolution of a complex disease resistance gene cluster in diploid *Phaseolus* and tetraploid *Glycine*. *Plant Physiology* **159**: 344-354. doi:10.1104/pp.112.195040.
- Epstein B, Branca A, Mudge J, Bharti AK, Briskine R, Farmer A, Sugawara M, Young ND, Sadowsky MJ, Tiffin P** (2012) Population genomics of the facultatively mutualistic bacteria *Sinorhizobium meliloti* and *S. medicae*. *PLoS Genetics* **8**(8): e1002868. doi:10.1371/journal.pgen.1002868.
- Paape T, Zhou P, Branca A, Briskine R, Young ND, Tiffin P** (2012) Fine scale population recombination rates, hotspots and correlates of recombination in the *Medicago truncatula* genome. *Genome Biology and Evolution* **4**: 726-737. doi: 10.1093/gbe/evs046.
- Young ND, Bharti AK** (2012) Genome-enabled insights into legume biology. *Annual Review of Plant Biology* **12**: 193-201.
- Branca A, Paape T, Zhou P, Briskine R, Farmer AD, Mudge J, Bharti AK, Woodward JE, May GD, Gentzbittel L, Ben C, Denny R, Sadowsky, MJ, Ronfort J, Bataillon T, Young ND, Tiffin P** (2011) Whole-genome nucleotide diversity, recombination, and linkage-disequilibrium in the model legume *Medicago truncatula*. *Proc. Natl. Acad. Sci. USA* **108**: E864-870. doi:10.1073/pnas.1104032108.
- Young ND, Debelle F, Oldroyd G, Geurts R, Cannon SB, Udvardi MK, Benedito VA, Mayer KFX, Gouzy J, Schoof H, et al** (2011) The *Medicago* genome provides insight into the evolution of rhizobial symbioses. *Nature* **480**: 520-524, doi:10.1038/nature10625.
- Young ND, Udvardi M** (2009) Translating *Medicago truncatula* genomics to crop legumes. *Current Opinions in Plant Biology* **12**: 193-201.
- Ameline-Torregrosa C, Cazaux M, Danesh D, Chardon F, Cannon SB, Esquerré-Tugayé MT, Dumas B, Young ND, Samac DA, Huguet T, Jacquet C** (2008) Genetic dissection of resistance to anthracnose and powdery mildew in *Medicago truncatula*. *Molecular Plant-Microbe Interaction* **21**: 61-69.
- Ameline-Torregrosa C, Wang BB, Denny RL, O'Bleness M, Despande S, Zhu H, Roe B, Young ND, Cannon SB** (2008) Identification and characterization of NBS-LRR encoded genes in the model plant *Medicago truncatula*. *Plant Physiology* **146**: 5-21.
- Hyten DL, Song Q, Choi I-Y., Yoon M-S., Specht JE, Matukumalli LK, Nelson RL, Shoemaker RC, Young ND, Cregan PB** (2008) High-throughput genotyping with the GoldenGate assay in the highly complex genome of soybean. *Theoretical and Applied Genetics*, **116**: 945-952.
- Innes RW, Ameline-Torregrosa C, Ashfield T, Cannon EC, Cannon SB, Chacko B, Chen NWG, Couloux A, Dalwani A, Denny R, Deshpande S, Egan AN, Glover N, Hans CS, Howell S, Ilut D, Jackson S, Lai H, Mammadov J, del Campo S, Metcalk M, Nguyen A, O'Bleness M, Pfeil BE, Podicheti R, Ratnaparkhe MB, Samain S, Snaders I, Seguren B, Seignac M, Sherman-Broyles S, Thareau V, Tucker DM, Walling J, Wawrzynski A, Yi J, Doyle JJ, Geffroy V, Roe BA, Maroof S, Young ND** (2008) Differential accumulation of retroelements and diversification of NB-LRR disease resistance genes in duplicated regions following polyploidy in the ancestor of soybean. *Plant Physiology* **148**: 1740-1759.
- Li L, He H, Zhang J, Wang X, Bai S, Stolc V, Tongprasit W, Young ND, Yu O, Deng XW** (2008)

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- Transcriptional analysis of highly syntenic regions between *Medicago truncatula* and *Glycine max* using tiling microarrays. *Genome Biology* 9: R57.
- Wang BB, O'Toole M, Brendel V, Young ND** (2008) Novel and conserved alternative splicing events are revealed by cross-species EST alignments in legumes. *BMC Plant Biology* 8: 17.
- Wawrzynski A, Ashfield T, Chen NW, Mammadov J, Nguyen A, Podicheti R, Cannon SB, Thareau V, Ameline-Torregrosa C, Cannon E, Chacko B, Couloux A, Dalwani A, Denny R, Deshpande S, Egan AN, Glover N, Howell S, Ilut D, Lai H, Del Campo SM, Metcalf M, O'Bleness M, Pfeil BE, Ratnaparkhe MB, Samain S, Sanders I, Segurens B, Sevignac M, Sherman-Broyles S, Tucker DM, Yi J, Doyle JJ, Geffroy V, Roe BA, Maroof MA, Young ND, Innes RW** (2008) Replication of non-autonomous retroelements in soybean appears to be both recent and common. *Plant Physiology* 148: 1760-1771.
- Choi I-Y, Hyten DL, Specht JE, Matukumalli LK, Song Q, Quigley CV, Lee MS, Chase K, Lark KG, Reiter RS, Yoon M-S, Hwang E-Y, Yi S-I, Young ND, Shoemaker RC, van Tassell CP, Cregan PB** (2007) A soybean transcript map: Discovery and mapping of single nucleotide polymorphisms in soybean genes. *Genetics* 176: 685-696.
- Febrer M, Cheung F, Town C, Cannon S, Young ND, Abberton M, Jenkins G, Milbourne D** (2007) Construction, characterization and preliminary BAC-end sequencing analysis of a bacterial artificial chromosome library of white clover (*Trifolium repens* L.). *Genome* 50: 412-421.
- Foster-Hartnett D, Danesh D, Penuela S, Sharopova N, Endre G, VandenBosch K, Young ND, Samac D** (2007) Cytological and molecular responses of *Medicago truncatula* to *Erysiphe pisi*. *Molecular Plant Pathology* 8: 307-319.
- Cannon SB, Sterck L, Rombauts S, Sato S, Cheung F, Gouzy JP, Wang X, Mudge J, Vasdewani J, Schiex T, Spannagl M, Monaghan E, Nicholson C, Humphray SJ, Schoof H, Mayer KFX, Rogers J, Quétier F, Oldroyd GE, Debelle F, Cook DR, Roe BA, Town CD, Tabata S, Van de Peer Y, Young ND** (2006) Legume evolution viewed through the *Medicago truncatula* and *Lotus japonicus* genomes. *Proceedings National Academy Sciences USA*, 103: 14959-14964.
- Mun JH, Kim DJ, Choi, HK, Gish J, Debelle F, Mudge J, Denny R, Endré G, Saurat O, Dudez AM, Kiss GB, Roe BA, Young ND, Cook DR** (2006) Distribution of microsatellites in the genome of *Medicago truncatula*: A resource of genetic markers that integrate genetic and physical maps. *Genetics* 172: 2541-2555.
- Walling JG, Shoemaker RC, Young ND, Mudge J, Jackson SA** (2006) Chromosome level homoeology in paleopolyploid soybean (*Glycine max*) revealed through integration of genetic and chromosome maps. *Genetics* 172: 1893-1900.
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