

Miquel A. Gonzalez-Meler
Curriculum Vitae

Address:

University of Illinois at Chicago
Department of Biological Sciences
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Education:

- B.Sc, 1990 Biology, Universitat de Barcelona, Spain
- M.Sc, 1991 Environmental plant biology, Universitat de Barcelona, Spain. *Cum laude*
- Ph.D., 1995 Smithsonian Institution of Washington, Universitat de Barcelona, Spain. *Cum laud* Best Thesis Award

Professional Experience:

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|--------------|------------------------|--|
| 2000-present | Assistant Professor | University of Illinois at Chicago, Department of Biological Sciences |
| 2001-present | Guest Research Faculty | Argonne National Lab, Environmental Research and Biology Divisions |
| 1997-2000 | Postdoctoral Fellow | Duke University, Department of Botany |
| 1995-1997 | Postdoctoral Fellow | Smithsonian Environmental Research Center |

Awards and Honors:

- Annals of Botany Lecturer Award, 2002.
- Visiting Professor Award, Universidade Federal de Viçosa, CNPq, Brazilian Government, March 2001.
- Postdoctoral Fellowship, Formación Personal Universitario, Spanish Government, 1995-97
- Extraordinary Award for Best Ph.D. Thesis in Biological Sciences, Universitat de Barcelona, 1996
- Smithsonian Institution Postdoctoral Fellowship, 1995-96 (70% declined)
- Smithsonian Institution Predoctoral Fellowship, 1993-94
- Predoctoral Fellowship, Formación Personal Investigador, Spanish Government, 1994 (declined)
- Predoctoral Fellowship, Formación Personal Investigador, Spanish Government, 1991-93

Grants

10/99-09/02	USDA (co-PI): Oxygen Isotope Fractionation by the Cyanide-Resistant Respiration.	120k
9/1-8/31	Columbia University/ Biosphere 2 (PI). Respiration at elevated CO ₂	10k
8/02-12/03	Packard Foundation/Columbia University (PI): Components of ecosystem respiration in forests exposed to elevated CO ₂ .	51k
7/03-6/04	CRB (PI): Isotope methods to distinguish root from heterotrophic respiration in soils.	11k
5/04-10/04	DOE/ANL (co-PI): The Biogeochemical Cycle of Nitrogen: Effects on Climate Change.	23k/77k
6/04-3/05	Brinson Foundation (PI): Nitrate conversion to N ₂ and Carbon sequestration in constructed wetlands: a market strategy.	25k
11/04-11/07	USDA (co-PI): Long term effects of elevated CO ₂ on physiology and productivity of sour orange trees	120k
4/05-9/06	NSF (PI): Carbon use efficiency of forests exposed to elevated CO ₂	100k
5/05-10/06	The Wetlands Initiative (PI): Wetland restoration and ecosystem services: a pilot study	100k
2/05-8/06	DOEd (co-PI): Nature, Math and Science Partnership	54k/219k
7/05-7/06	CRB (PI): The effects of high atmospheric concentrations of CO ₂ and O ₃ on carbon fixation, respiration and allocation in an agricultural crop system	12k

Funded grants listed as collaborator

1/01-12/04	DOE: FACTS-1, continuation (W. Schlesinger et al)	20k/1.1M
9/03-9/05	USDA: Root physiology and temperature stress in turf grasses (B. Huang)	10k/110k
10/04-10/06	DOE: Controls on Soil Carbon retention under elevated atmospheric CO ₂ (J Jastrow et al.)	45k/550k
10/04-10/07	NASA/DOE: Carbon sequestration potential in Midwest agricultural land and restored grasslands (R Matamala)	30k/730k

International Grants

1999-2007. Research Focus Group: Responses of plants and soils to fires and global change in the Mediterranean. Generalitat de Catalunya and Universitat de Barcelona, Spain 1999-2001. *Principal Investigator: Joaquim Azcón-Bieto, Ramón Vallejo, Miquel A. González-Meler, et al.* \$20,000/yr. *extended through 2004 and 2007.*

Pending grants:

WERF (PI): Assessment of ecosystem services for air and water quality. 110k
IGERT/NSF: Ecology, Management and Restoration of Integrated Human/Natural Landscapes
NSF (PI): Training in Environmental biology. Pre-proposal
FONTAGRO: Sustainable agriculture in tropical degraded land in Costa Rica, Venezuela and Colombia

Contracts:

Isotope analyses; 2004 2.5k; 2005, 1.7k.

Water Reclamation District Greater Chicago Area: Nitrogen Sources to the Illinois River;
15k, 2004; 60k, 2005
USDA/ANL, Phytoremediation test site in Murdock, NE; 2005, 27k

Teaching Experience:

Semester	Course Title
Fall, spring 1993	Plant Physiology Lab Teaching Assistant Universitat de Barcelona. (60 students).
Fall 1999	Bot 329: Molecular Basis of Plant Function, Duke University (14 students).
Fall 2000	BioS 214: Introduction to Plant Physiology with labs (75 students)
Spring 2001	BioS 594: Physiological Plant Ecology (7 students)
Spring 2002	BioS 594: Stable isotopes in Ecology and Evolution (12 students)
Fall 2002	BioS 531: Principles in Ecology and Evolution (9 students)
Spring 2003	BioS 240: Homeostasis (67 students)
Summer 2003	BioS 240: Homeostasis (89 students)
Fall 2003	BioS 510/594: Environmental Soil Science (12 students)
Spring 2004	BioS 240: Homeostasis (131 students)
Fall 2004	BioS 240: Homeostasis (153 students)
Fall 2004	BioS 510/594: Stable isotopes in the biogeosciences (6 students)
Summer 2005	BioS 490: Nature, Science, and Math Partnership Summer Institute (12 participants – elementary school teachers)
Fall 2005	BioS 531: Principles in Ecology and Evolution (8 expected students)
Fall 2005	BioS 594: Nature, Science, and Math Partnership: Instructional techniques for the teaching of science in Chicago Public schools (22 expected elementary school teachers)

Publications (peer reviewed):

- 1989 Azcón-Bieto J, Ribas-Carbo M, **González-Meler** MA, Peñuelas J (1989). Sulfide-Resistant Respiration in *Elodea canadensis* Michx. Comparison with Cyanide-Resistant Respiration. **Plant Physiology** 90: 1249-1251.
- 1992 **González-Meler** MA, Aranda X, Ribas-Carbo M, Peñuelas J, Azcón-Bieto J (1992). Titration of cytochrome pathway by azide, cyanide and sulfide in leaf slices of *Pisum sativum* L. In **Molecular, Biochemical and Physiological Aspects of Plant Respiration**; H. Lambers and L.H.V. van der Plas eds. SPB Academic Publishing bv, The Hague, The Netherlands, pp. 603-607
- 1992 Palet A, Ribas-Carbo M, **González-Meler** MA, Aranda X, Azcón-Bieto J (1992). Short-term effects of CO₂/Bicarbonate on Plant Cell. In **Molecular, Biochemical and Physiological Aspects of Plant Respiration**, H. Lambers and L.H.V. van der Plas eds. SPB Academic Publishing bv, The Hague, The Netherlands, pp. 597-602.
- 1994 Azcón-Bieto J, **González-Meler** MA, Doherty W, Drake BG (1994) Acclimation of respiratory O₂ uptake in green tissues of field-grown native species after long-term exposure to elevated atmospheric CO₂. **Plant Physiology** 106:1163-1168
- 1995 Peñuelas J, Ribas-Carbo M, **González-Meler** MA, Azcón-Bieto J (1995) Water status, photosynthetic pigments, C/N ratios and respiration rates of Sitka Spruce seedlings exposed to 70 ppbv ozone for a summer. **Environmental and Experimental Botany** 34(4):443-449.

- 1996 **González-Meler** MA, Ribas-Carbo M, Siedow JN, Drake BG (1996). Direct inhibition of plant mitochondrial respiration by elevated CO₂. **Plant Physiology**, 112:1349-1355
- 1996 **González-Meler** MA, BG Drake, J Azcón-Bieto (1996). Rising atmospheric carbon dioxide and plant respiration. In AI Breymeyer, DO Hall, JM Melillo, GI Ågren, eds, **Global Change: Effects on Coniferous Forests and Grasslands**. SCOPE, vol. 56, John Wiley & Sons Ltd., UK, pp. 161-181.
- 1996 Drake BG, Meuhe M, Peresta G, **González-Meler** MA, Matamala R (1996). Acclimation of photosynthesis, respiration and ecosystem carbon flux of a wetland on Chesapeake Bay, Maryland, to elevated atmospheric CO₂ concentration. **Plant and Soil**, 187: 111-118.
- 1997 Drake BG, **González-Meler** MA, Long SP (1997) More efficient plants: a consequence of increased atmospheric CO₂? **Annual Review of Plant Physiology and Plant Molecular Biology** 48: 609-639.
- 1998 **González-Meler** MA, Giles L, Ribas-Carbo M, Siedow JN (1998). Is increased partitioning to the alternative pathway a mechanism by which plants respond to low temperatures?. In **Plant mitochondria: from gene to function**, Møller IM, Gardeström P, Glimelius K, Glaser E eds. Backhuys Publishers, Leiden, The Netherlands pp. 459-464.
- 1998 **González-Meler** MA, Matamala R, Peñuelas J (1998). Effects of prolonged drought stress and nitrogen deficiency on the respiratory O₂ uptake of leaves of beans and peppers. **Photosynthetica**, 34: 505-512.
- 1998 Drake BG, Jacob J, **González-Meler** MA (1998). 21. Photosynthesis, respiration, and global climate change. In **Photosynthesis: a comprehensive treatise**. AS Rhagavendra Ed. Cambridge University press. Cambridge, UK. pp 273-282.
- 1999 Drake BG, Azcón-Bieto J, Berry JA, Bunce J, Dijkstra P, Farrar J, Koch GW, Gifford R, **González-Meler** MA, Lambers H, Siedow JN, Wullschlegler S (1999). Does elevated CO₂ inhibit plant mitochondrial respiration in green plants?. **Plant, Cell and Environment** 22: 649-657.
- 1999 **González-Meler** MA, Ribas-Carbo M, Giles L and Siedow JN (1999). The effect of growth and measurement temperature on the activity of the alternative respiratory pathway. **Plant Physiology** 120: 765-772.
- 1999 **González-Meler** MA, Siedow JN (1999). Inhibition of respiratory enzymes by elevated CO₂: Does it matter at the intact tissue and whole plant levels? **Tree Physiology** 19: 253-259.
- 2000 Ribas-Carbo M, Aroca R, **González-Meler** MA, Irigoyen J, Sánchez-Díaz M (2000) Electron partitioning between the cytochrome and alternative respiratory pathways during chilling recovery in two cultivars of maize (*Zea mays* L.) differing in chilling sensitivity. **Plant Physiology** 122:199-204.
- 2000 Millenaar FF, Roelofs R, **González-Meler** MA, Siedow JN, Wagner AM, Lambers H. (2000) The root alternative oxidase during low-light conditions. **The Plant Journal** 23: 623-633.

- 2000 Ribas-Carbó M, Robinson S, **González-Meler MA**, Lennon AM, Giles L, Siedow JN, Berry JA. (2000) Effects of light on respiration and oxygen isotope fractionation in soybean cotyledons. **Plant, Cell and Environment** 23: 983-989
- 2001 **González-Meler MA**, Giles L, Thomas RB, Siedow JN (2001) Metabolic regulation of leaf respiration and alternative pathway activity in response to phosphorus nutrition. **Plant, Cell and Environment** 24: 205-215.
- 2001 Millenaar FF, **González-Meler MA**, Fiorani F, Welschen R, Ribas-Carbo M, Siedow JN, Wagner AM, Lambers H. (2001) Regulation of alternative oxidase in six wild monocotyledonous species: an *in vivo* study of the whole root system. **Plant Physiology** 126: 376-387.
- 2002 Millenaar FF, **González-Meler MA**, Fiorani F, Welschen R, Ribas-Carbo M, Siedow JN, Wagner AM, Lambers H. (2002) Role of sugars and organic acids in regulating the concentration and activity of the alternative oxidase in *Poa annua* roots. **Journal of Experimental Botany** 53: 1081-1088.
- 2002 Umbach AL, **Gonzalez-Meler MA**, Sweet CR, Siedow JN (2002) Activation of the plant mitochondrial alternative oxidase: insights from site-directed mutagenesis. **Biochimica Biophysica Acta – Bioenergetics**, 1554: 118-128.
- 2003 Matamala R, **Gonzalez-Meler MA**, Jastrow JD, Norby R, Schlesinger WD (2003). Slow root C turnover in forests: implications for carbon sequestration. **Science** 302: 1385-7
- 2003 Pataki DE, Ellsworth DW, Evans RD, **Gonzalez-Meler MA**, King JS, Leavitt SW, Lin G, Matamala R, Pendall E, Siegwolf R, van Kessel C, Ehleringer JR. (2003). Tracing changes in ecosystem function under elevated CO₂. **Bioscience**. 53(9): 805-818.
- 2004 Matamala R, **Gonzalez-Meler MA**, Jastrow JD, Norby R, Schlesinger WD (2004) Comment on "Impacts of Fine Root Turnover on Forest NPP and Soil C Sequestration Potential" **Science** 304: p. 1745d-1745d
- 2004 **Gonzalez-Meler MA**, Taneva L Trueman RJ (2004) Plant respiration and increased atmospheric CO₂: Cellular Responses and Global Significance. **Annals of Botany** 94: 647-656.
- 2005 **Gonzalez-Meler MA**, Taneva L (2005) Integrated Effects of Atmospheric CO₂ Concentration on Plant and Ecosystem Respiration. In, Lambers H., Ribas-Carbo M (eds.), Plant Respiration. Kluwer-Academic Publishers. Dordrecht, pp 211-259.
- 2005 Trueman RJ, **Gonzalez-Meler MA** (2005) Accelerated below ground C cycling in a managed agriforest ecosystem exposed to elevated carbon dioxide concentration. **Global change Biology**. 11, 1258-1271.
- 2005 Taneva L, Pippet JS, Schlesinger, WH, **Gonzalez-Meler MA** (2005) Turnover of C pools contributing to soil CO₂ and soil respiration in a temperate forest exposed to elevated CO₂ concentration. *Global Change Biology*, in press.

Non-peer reviewed and other publications

- 2000 **González-Meler MA**, Ribas-Carbo M (2000). 13. La Fisiología de la Respiración de las plantas. *In* Fundamentos de Fisiología Vegetal, J.Azcón-Bieto, A. Talón eds. McGraw & Hill.
- 2000 Matamala R, **González-Meler MA** (2000) Net Primary Production of Forest Ecosystems and Global Change. Scientific American, Spanish Edition. Nov 2000.

Manuscripts submitted and in Preparation:

Trueman RJ, **Gonzalez-Meler MA**. Carbon use efficiency and the partitioning of photosynthetic C to aboveground and belowground respiration in an intact *Populus deltoides* forest plantation during an experimental drought. *Functional Plant Biology*, *submitted*.

Kenig F, **Gonzalez-Meler MA**. Was there C4 photosynthesis during the Cretaceous? *Geology*, to be submitted 8/05

Gonzalez-Meler MA. The role of the alternative pathway of respiration in plants grown at elevated CO₂. *Plant Cell and Environment*

Gonzalez-Meler MA, Fiorani F, Siedow JN. The engagement of the alternative oxidase during plant respiration is transient in response to metabolic stress. *Plant Physiology*

Invited Seminars:

2005. **Keynote speaker**: The physiology of ecosystems in response to global change. Global Change in Tropical Ecosystems. Universidad del Valle, Palmeira, Colombia.
2005. Short-term versus long-term responses of the alternative oxidase to metabolic stress. International Congress of Plant Mitochondria, Obernai, France
2005. **Keynote speaker**, The components of soil respired-CO₂ across spatial and temporal scales in forests. Soil Ecology Society, IL
2004. Respiration and global change: Past, Present and Future. Universitat Autònoma de Barcelona, Bellaterra, Spain
2004. Long and short-term isotope labeling techniques to separate autotrophic from heterotrophic respiration in soils. COST Workshop Capri, Italy
2004. New approaches to separate components of ecosystem and soil respiration. Soil respiration: CaRTE workshop, Laguna Beach CA.
2003. Roots and climate change. School of Public Health, UIC
2003. Respiratory feedbacks on the carbon cycle Civil engineering, Northwestern U. Chicago, IL
2003. Respiratory control of the carbon cycle in a changing environment. ESA symposium, Savannah, GA

2002. The physiology of plant respiration during human-induced stress. Universitat Barcelona, Spain
2002. Respiration of plants, soils and ecosystems and global environmental change. DOE Global Change workshop, Oracle AZ.
2002. **Keynote speaker** Plant respiration and global change: cellular responses have global significance. International Congress of Plant Mitochondria, Perth, Australia
2002. Rhizosphere respiration limits C accumulation in soils of forested ecosystem exposed to elevated CO₂. Columbia University, NY.
2001. Methodological challenges of respiration from enzymes to the globe. *New approaches*. DOE Global Change workshop, Oracle AZ.
2001. Isotope techniques to study ecosystem dynamics under global change scenarios. Ehleringer et al. DOE Research Team Meeting, Argonne, IL.
2001. Tracking pools and fluxes of carbon in a forest exposed to elevated CO₂. GCTE/DOE Workshop: Tracing Carbon in Elevated CO₂ Experiments: A workshop on isotopic analyses of where the carbon is going. Durham, NC.
2001. Are ecosystems inhaling or exhaling: ecosystem respiration and the global carbon cycle. Northwestern University, Chicago, IL.
2001. Alternative pathway of plant respiration: Metabolic flexibility in response to stress. Federal University of Viçosa Minas-Gerais, Brazil.
2001. Plant respiration: Isotopic approach to integrate cellular responses and their global significance. Federal University of Viçosa Minas-Gerais, Brazil.
2000. Enzymatic responses of plant respiration with global significance. Catalan Society of Biology, Barcelona, Spain.
2000. New insights into the role and regulation of the alternative oxidase in plant respiration. University of Illinois Urbana-Champaign.
2000. Plant respiration: Cellular response and global significance. Oklahoma State University, Stillwater, OK.
2000. Plant respiration: Cellular response and global significance. University of Illinois, Chicago, IL.
1999. Plant respiration: Molecular response and global significance. University of Texas, Austin, TX.
1999. The involvement of the alternative oxidase in phosphorus limitation. American Society of Plant Biology, Annual Meeting; Abiotic Stress Symposium. Baltimore, MD.
1999. Is plant respiration at elevated CO₂ an increased or a decreased sink for atmospheric carbon? University of Utah, Salt Lake City, UT.

1999. Participation of the alternative pathway to root respiration depending upon inherent plant growth rate and carbohydrate supply to the roots. Duke University, Durham, NC.
1998. Is increased partitioning to the alternative pathway a mechanism by which plants respond to low temperatures? Plant Molecular Biology Workshop, Ashville, NC.
1998. Environmental effects on the activity of the alternative pathway of respiration. Duke University, Durham, NC.
1997. The direct inhibition of mitochondrial respiration by elevated CO₂. Duke University, Durham, NC.
1996. New perspectives in interpreting the effects of elevated CO₂ on plant respiration. Smithsonian Environmental Research Center, Edgewater, MD.
1996. New perspectives in interpreting the effects of elevated CO₂ on plant respiration. Carnegie Institution of Washington, Stanford, CA.
1996. Respiration: an increased or decreased sink in elevated CO₂? BG Drake and MA Gonzàlez-Meler, COST 619 Action Workshop: Effects of elevated CO₂ on European grasslands. University of Essex, Colchester, UK, 22-24.
1994. How does atmospheric CO₂ concentration regulate dark respiration? BG Drake and MA Gonzàlez-Meler, ECOCRAFT: Responses of trees and forests to global change. Dourdan, France.
1994. Seven years of elevated CO₂ exposure of a Chesapeake Bay wetland. BG Drake, MA Gonzàlez-Meler, J Jacob, G Peresta and G Thompson. The first GCTE (Global Change and Terrestrial Ecosystems) Science Conference. Woods Hole, Massachusetts.

Papers presented at professional meetings (last 5 years):

2005. Trueman RJ, Yakir D, **Gonzalez-Meler MA**. Is there isotopic fractionation during plant respiration? International Congress on Plant Mitochondrial Biology. Obernai, France. (poster)
2005. O'Brien SL, Jastrow JD, **Gonzalez-Meler MA**. Vegetative and edaphic controls on soil carbon accumulation in restored grasslands, p. 73. In Book of Abstracts, Soil Ecology Society Tenth Biennial International Conference, Argonne National Laboratory, Argonne, Illinois. (oral)
2005. Trueman RJ, **Gonzalez-Meler MA**. C allocation and the contribution of C from pools of varying age in a *P. deltoides* ecosystem during a simulated drought. Ecological Society of America Meeting. Montreal, Canada. (oral)
2005. Trueman RJ, Berry JA, **Gonzalez-Meler MA**. C allocation and the contribution of C from pools of varying age in a *P. deltoides* ecosystem during a simulated drought. Soil Ecology Society 10th International Conference. Argone, IL. (oral)
2005. Taneva L, Phippen JS, Schlesinger WH, **Gonzalez-Meler MA**. Average Age of Soil C Pools Contributing to Soil CO₂ in a Forest Exposed to Free-Air CO₂ Enrichment. SES Biennial Meeting, IL (oral)

2005. Taneva L, Phippen JS, Schlesinger WH, **Gonzalez-Meler MA**. The Turnover of Soil Carbon Pools Contributing to Soil CO₂ and Soil Respiration in a Temperate Forest Exposed to Elevated CO₂ Concentration Oral Presentation, ESA Annual Meeting, Canada (poster)
2004. O'Brien SL, Jastrow JD, **Gonzalez-Meler MA**. Soil carbon accrual from C₃ and C₄ plant sources in a restored tallgrass prairie chronosequence. American Geophysical Union Fall Meeting, San Francisco, California. (poster)
2004. O'Brien SL, Jastrow JD, **Gonzalez-Meler MA**. Soil carbon accrual from C₃ and C₄ plant sources in a restored tallgrass prairie chronosequence, p. 101. In Official Meeting Program, Ecological Society of America 89th Annual Meeting, Portland, Oregon. (poster)
- 2004 Trueman RJ, Lin G, Yakir D, Berry JA, **Gonzalez-Meler MA**. Direct effects of CO₂ concentration on isotopic discrimination by plant respiration. Sigma Xi Forum, University of Illinois at Chicago. (oral)
- 2004 Trueman RJ, Lin G, Yakir D, Berry JA, **Gonzalez-Meler MA**. Direct effects of CO₂ concentration on isotopic discrimination by plant respiration. Ecological Society of America Meeting Portland, Oregon. (poster)
- 2004 Trueman RJ, Taneva L, Berry JA, Yakir D, Lin G, **Gonzalez-Meler MA**. Effects of changes in atmospheric [CO₂] on the isotopic composition of respired CO₂. Basin/Sibae-"Partitioning of fluxes between the biosphere and the atmosphere across spatial scales". (poster)
- 2004 Trueman RJ, Lin G, Yakir D, Berry JA, **Gonzalez-Meler MA**. Plant respiration oxidizes a larger proportion of photosynthate as atmospheric [CO₂] increases. CaRTE Workshop "Carbon Respiration from Terrestrial Ecosystems: Reducing uncertainties in the role played by respiration in the global carbon cycle" Irvine, CA, USA (poster)
- 2004 Taneva L, Phippen JS, Schlesinger WH, **Gonzalez-Meler MA**. Responses of Forest Soil Respiration to Elevated [CO₂]: Implications for Soil C Storage. GCTE CaRTE Workshop, CA. (poster)
- 2004 Taneva L, Phippen JS, Schlesinger WH, **Gonzalez-Meler MA**. Average Age of Soil C Pools Contributing to Soil CO₂ in a Forest Exposed to Free-Air CO₂ Enrichment. Poster Presentation, ESA Annual Meeting, OR. (poster)
- 2003 Trueman RJ, Lin G, Yakir D, Berry JA, **Gonzalez-Meler MA**. Plant respiration oxidizes a larger proportion of photosynthate as atmospheric [CO₂] increases: based on a one-day photosynthesis ¹³C tracer experiment. Basin Sibae ESF- Stable isotopic signals of the terrestrial biosphere: Linking ecosystem C fluxes to isotopic signals of plant components, Orvieto Italy. Student funding from Basin-Sibae. (poster)
- 2003 Trueman RJ, Oleynik SA, Berry JA, Yakir D, **Gonzalez-Meler MA**. The mean residence time of photosynthetic carbon in vegetation is determined by ecosystem respiration. GCTE Focus 1 workshop: "Interactions Between Increasing CO₂ and Temperature in Terrestrial Ecosystems." Lake Tahoe, California. (poster)

- 2003 Trueman RJ, Berry JA, Yakir D, **Gonzalez-Meler MA**. Respiratory control of ecosystem carbon cycling assessed with a ^{13}C tracer. Mesocosm assessment meeting. Columbia University Biosphere 2 Center. (oral)
- 2003 Matamala R, O'Brien SL, Smith E, Jastrow JD, **Gonzalez-Meler MA**. Soil carbon cycling and storage in a restored tall grass prairie chronosequence. Carbon Respired from Terrestrial Ecosystems National Science Foundation Workshop, Laguna Beach, California. (poster)
- 2003 Trueman RJ, Murthy R, Yakir D, Marshall JD, Berry JA, **Gonzalez-Meler MA**. A novel methodology for estimating mean residence times of ecosystem carbon pools. Ecological Society of America Meeting. Savannah, Georgia. (oral)
- 2003 Trueman RJ and **Gonzalez-Meler MA**. Elevated CO_2 Pulses Give a fresh breath to ecosystem carbon cycling. Sigma Xi Research Forum. University of Illinois at Chicago. (oral)
- 2003 Taneva L, Matamala R, Phippen JS, Schlesinger WH, **Gonzalez-Meler MA**. Responses of Forest Soil Respiration to Elevated $[\text{CO}_2]$: Implications for Soil C Storage. Poster presentation, ESA Annual Meeting, GA. (poster)
- 2002 Trueman RJ and **Gonzalez-Meler MA**. ^{13}C Pulse Chase Detailed Methodology Explained Columbia University Biosphere 2. Oracle, Arizona. (oral)
- 2002 Trueman RJ and **Gonzalez-Meler MA**. Respiratory Control of Ecosystem Carbon Cycling Biosphere 2 Soils Workshop. Columbia University Biosphere 2. Oracle, Arizona. (oral)
- 2001 **Gonzalez-Meler MA**. Components of ecosystem respiration in a forest exposed to elevated CO_2 . Ecological Society of America, Madison Wisconsin. (oral)
- 2001 Matamala R, Smith E, Jastrow JD, Miller RM, **Gonzalez-Meler MA**. Study of ecosystem carbon cycling using prairie chronosequence and stable isotopes. Department of Energy Research Meeting, Argonne IL (poster)
- 2001 **Gonzalez-Meler MA**, Matamala R, Andrews JA, Luo Y, Katul G, Schlesinger WH. Rhizosphere respiration limits C accumulation in forests exposed to elevated CO_2 . History of CO_2 , Snowbird, UT Dec 2001. (poster)
- 2001 Kenig F and **Gonzalez-Meler MA**. An isotopic excursion of land plant biomarkers in the Devonian-Cerunian boundary reveals a novel photosynthetic pathway. History of CO_2 , Snowbird, UT Dec 2001. (poster)

Professional Affiliations:

AAAS American Association for the Advancement Science
 ASPP American Society of Plant Physiologists
 AGU American Geophysical Union
 ESA Ecological Society of America
 SES Soil Ecology Society

Grant Reviews:

NERC-UK Environmental Research Program. 2000-2003
NERC-UK High Risk Research Program. 2003
USDA Plant adaptations to the environment. 2001-present
NSF-Plant Biology Cluster. 2005

Manuscript Reviews:

Ad-hoc reviewer for Agronomy Journal
Ad-hoc reviewer for Annals of Botany
Ad-hoc reviewer for Crop Science
Ad-hoc reviewer for Functional Ecology
Ad-hoc reviewer for Functional Plant Biology
Ad-hoc reviewer for Global Biogeochemical Cycles
Ad-hoc reviewer for Global Change Biology
Ad-hoc reviewer for Nature
Ad-hoc reviewer for New Phytologist
Ad-hoc reviewer for Oecologia
Ad-hoc reviewer for Plant and Soil
Ad-hoc reviewer for Plant Biology
Ad-hoc reviewer for Plant Cell and Environment
Ad-hoc reviewer for Plant Physiology
Ad-hoc reviewer for Planta
Ad-hoc reviewer for Physiologia Plantarum
Ad-hoc reviewer for Science
Ad-hoc reviewer for Tree Physiology
Ad-hoc reviewer for Soil Biology and Biochemistry and others
Expert Reviewer International Panel for Climate Change, 1995, 2001 and for 1998 regional report.

University and Department Service:

University: Graduate fellowships committee, Graduate College, 2004-present
Honors College fellow. 2001-present
SROP mentor 2003-present
Bridge mentor, 2004-present
Tri-Beta faculty co-sponsor 2002-present

Departmental: 2000-02 Undergraduate Curriculum Committee

Graduate Students Advising and Supervision:

Liz Smith	F/01-S/04	M.S. candidate. Thesis titled: Linking restoration with carbon sequestration in tallgrass prairies.
Lina Taneva	F/01-Present	PhD candidate. Thesis titled: Effects of elevated CO ₂ on respiratory flux of forested ecosystems (Recipient of an UIC fellowship).

Rebecca Trueman	F/02-Present	PhD candidate. Thesis titled: Environmental controls on large-scale ecosystem respiration fluxes.(RA, 2005-2006)
Sarah O'brien	F03-Present	PhD student. Thesis title: Biological and physical control of c cycling in soils of restored ecosystems (Recipient of an UIC fellowship) (recipient of a GCEP-DOE fellowship 2005-8)
Erin McGuire	F05-Present	PhD student. Thesis title: TBD (Recipient of an UIC fellowship)
Scott Graham	F05-Present	M.S. Student. Thesis titled: TBD (RA 2005-2006)

Additional personnel

Sergey Oleynik	Stable Isotope Specialist	2003-present
Matt Lortz	Technician	2005-present
Anna Oleynik	Technician	2005
Elena Blanco	Technician	2005-present

Undergraduate Supervision and Advising (work study, independent study, extra help):

Tony Sebaly	Ryan Burgette	Lubina Perez*	Ruby Cardenas
Rachel Parkhi	Krystyna Wesolowski	Romeo Mecenas*	Tran Tri
Ahmad Othman	Rosalba Hernandez	Lena Brown*	Vanessa Terenzio
Tiffany Shu	Iliana Perea	Glenn Capodagli	Suzanne Ibrahim
Allison Jaeger	Leah Simoni	Amanda Brasfield	Jimini Patel
Carolina Priestler*	Kristina Kowiczy	Kruppa Patel	Christen Dinken
Reginal Cantave*	Viktorina Oleynik	Trang Troing	

*Recipients of minority fellowships

Visiting Scientists and Students

Iain Hartley, University of York, UK summer 2001
 Heidi Garcia, University of Puerto Rico, summer 2003
 Nuria Casanovas, University of Barcelona, summer 2003, summer-fall 2005
 Shimon Abrimovic, Rutgers University, summer 2005
 Mauro Rubino, Second University of Naples, Italy, summer-fall 2005.

Other Merits

ISI Highly Cited Paper in environmental sciences in 2004

Symposium Organizer symposium “Respiratory control of the global C balance: search for new integrative tools”, ESA, Savanna, GA, 2003

Invited Scientist Universidade Federal de Viçosa, funded by Conselho Nacional de Pesquisas (CNPq), Brazil. March 2001.

Invited Scientist Universidad del Valle, Colombia, funded by CORPOICA, August 2005

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