

DAVID GRASS

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EDUCATION

- Sep 2001- Present **COLUMBIA UNIVERSITY, M.A. 5/2003, M.Phil 5/2005, PhD exp 8/2007** New York, NY
- Department of Earth and Environmental Science
 - Major: Climate Science
 - Minors: Atmospheric Science, Environmental Health Science
 - Co-Chair Graduate Student Committee, Fall 2002 to Spring 2004
 - Received Sara Fitzgerald Langer Book Prize, 2003 for contributions to academic and student life
 - Awarded 2-year NSF IGERT Fellowship in Applied Mathematics and Earth & Environmental Science
 - Awarded 3-year EPA STAR Fellowship for Graduate Environmental Study
- July 2000- May 2001 **FULBRIGHT SCHOLAR**, Universidad de Chile Santiago, Chile
- Fulbright project entitled: Lichens as Bioindicators of Air Pollution in Chile
 - Successfully proposed and executed an international collaboration between NASA-Goddard and the Chilean Environmental Health Service to continuously monitor aerosol size and distribution in Santiago
- Jan to June 1998
- Studied Biochemistry, Biostatistics in Spanish
 - Awarded scholarship from the National Security Education Program
- Sep 1995- May 1999 **MIDDLEBURY COLLEGE, B.A.** Middlebury, VT
- Graduated May, 1999; magna cum laude, GPA: 3.7
 - Joint major in Chemistry/Environmental Studies, Minor: Spanish
 - Named Howard Hughes Medical Institute Research Fellow
 - High Departmental Honors on Senior thesis, entitled: "Nutrient Uptake in the Epiphytes of an Old-Growth Temperate Rain Forest in Southern Chile"
 - Elected President: Caribbean and Latin American Student Alliance

EXPERIENCE

- Jan 2003 to Present **Co-Investigator, Occupational Exposures to Steel Dust in the NYC Subway, Columbia University** Palisades, NY
- Coordinated design and execution of exposure assessment, biological monitoring, and biomarker analyses
 - Managed successful Internal Review Board application and HIPAA privacy board application for human subjects study
 - Coordinated study logistics with labor and management
 - Helped develop custom personal air pollution monitor for use in subway
 - Analyzed biological and environmental data and synthesized results

September 2003	Instructor, Public Health Impacts of Climate Change, P9300 Mailman School of Public Health, Columbia University <ul style="list-style-type: none"> • Designed syllabus and taught the climate science portion of this team-taught graduate-level course. 	New York, NY
2002, 2004	Teaching Assistant, Columbia University <ul style="list-style-type: none"> • Earth's Oceans and Atmosphere, W4930 • Dynamics of Climate Variability and Climate Change, W4400 • The Climate System, EESC 2100, Set up and oversaw computer-based and hands-on laboratory designed to reinforce the physical principles learned in lecture. 	New York, NY
June 1999-May 2000	Data Analyst, NASA/Goddard Space Flight Center Hydrological Sciences Branch <ul style="list-style-type: none"> • Correlated remotely-sensed climatologic variables with malaria incidence to predict epidemics in hypoendemic regions • Applied multivariate time series analysis to determine malaria risk • Extracted and subset satellite data using Fortran, GRADS, IDL 	Greenbelt, MD
June 1998- May 1999	Research and Teaching Assistant, Middlebury College <ul style="list-style-type: none"> • Analyzed fish flesh for Mercury using Cold-Vapor AA Spectroscopy • Analyzed rain for ultra-trace base cations on Graphite Furnace AAS • Assisted a high school chemistry class designing and carrying out lead detection projects using the college's analytical equipment 	Middlebury, VT

WORKSHOPS AND SYMPOSIA

June 6-15, 2004	American Meteorological Society- Summer Policy Colloquium 2004	Washington, DC
July 21-28, 2004	NCAR Summer Colloquium on Climate and Health	Boulder, CO
Sept. 21-23, 2004	Challenges in Urban Meteorology: A Forum for Users and Providers	Rockville, MD
April 4-6, 2005	Air Pollution as Climate Forcing: A Second Workshop	Honolulu, HI

PRESENTATIONS

September 11, 2006	American Association for Aerosol Research- International Aerosol Conference Presentation: Grass D, SN Chillrud, JM Ross, J Barbour, HJ Simpson, F Family, D Coulibaly, V Slavkovich, J Hernandez, Y Chen, R Santella, P Brandt-Rauf. Occupational Exposures to Air-borne Particulate-Metals in the NYC Subway: Assessing the Potential for Health Impacts.	St. Paul, MN
May 16-18, 2006	EPA Science Forum Poster: Grass D, SN Chillrud, J Ross, J Barbour, HJ Simpson, F Family, D Coulibaly, V Slavkovich, J Hernandez, Y Chen, R Santella, P Brandt-Rauf. Occupational Exposures to Steel Dust in the NYC Subway: Assessing the Potential for Health Impacts.	Washington, DC
December 13, 2003	American Geophysical Union -Fall Meeting Poster: Grass D & Cane M. Partitioning the Effects of Weather and Air Pollution on Human Mortality in Santiago, Chile: 1988-1996 <i>Eos</i> .	San Francisco, CA

	<i>Trans. AGU</i> , 84(46), Fall Meet. Suppl., Abstract U32A-0025, 2003.	
September, 2003	United States Coast Guard Academy Invited Lecture: Potential Health Effects of Steel Dust in the New York City Subway System	New London, CT
May, 2000	American Geophysical Union –Spring Meeting Grass D, Jasinski M, Aparicio M, Govere M, Myers M. Evaluating Hydroclimatic Variables as Predictors of Malaria Infection. <i>Eos Trans. AGU</i> , 81(19), Spring Meet. Suppl., Abstract B52B-03, 2000.	Washington, DC
April, 1999	Council on Undergraduate Research’s Poster Session on the Hill Presented Chemistry Senior Thesis to Members of Congress	Washington, DC
December, 1998	CPES Collaborator’s Meeting, Institute of Ecosystem Studies Nutrient Uptake and Release in Epiphyte Communities of <i>Nothofagus nitida</i>	Millbrook, NY

PUBLICATIONS

Chillrud SN, Grass D, Ross JM, Coulibaly D, Slavkovich V, Epstein D, Sax SN, Pederson D, Johnson D, Spengler JD, Kinney PL, Simpson HJ, Brandt-Rauf P. Steel Dust in the New York City Subway System as a Source of Manganese, Chromium, and Iron Exposures for Transit Workers, *Journal of Urban Health*, v81: 33-42, 2005.

Grass DG & Cane MA. The Effects of Weather and Air Pollution on Cardiovascular and Respiratory Mortality in Santiago, Chile During the Winters of 1988 to 1996. *International Journal of Climatology* (in press).

Grass DG, Chillrud SN, Ross JM, Family F, Barbour J, Simpson HJ, Coulibaly D, Santella R, Slavkovich V, Hernandez J, Chen Y, Brandt-Rauf P. Airborne Particulate-Metals in the NYC Subway: A Pilot Study to Assess the Potential for Health Impacts in Transit Workers. *Environmental Health Perspectives* (in preparation).

Grass DG & Chillrud SN. Temporal Trends and Spatial Patterns in Air-borne Concentrations of Asbestiform Fibers in Lower Manhattan after September 11th, 2001. *Atmospheric Environment* (in preparation).

ADDITIONAL

Air Quality:	Exposure Assessment, Air Pollution Modeling, Risk Assessment/Communication	
Health:	Environmental Epidemiology, Biomonitoring, Climate Change Impacts	
Languages:	Fluent in oral/written Spanish; elementary Russian	
Statistics:	Biostatistics, Parametric and Non-parametric data analysis in R, Excel, Matlab, SAS	
Safety and Privacy Training:	Health Sciences: Protection of Human Research Participants (GCP) - for Investigators in Epidemiology and the Social and Behavioral Sciences	Feb 26 th , 2003
	Morningside Human Subjects Training Course	Feb 5 th , 2003
	HIPAA: Health Insurance Portability Accountability Act Training Course	Dec 6 th , 2003
	Hazard Waste Management, Laboratory Safety, Radiation Safety, Fire and Life Safety	Jan 24 th , 2007

PROFESSIONAL MEMBERSHIPS

American Geophysical Union
 American Meteorological Society
 American Industrial Hygiene Association
 Air and Waste Management Association
 American Association for Aerosol Research

REFERENCES

Dr. Mark Cane

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Dr. Paul Brandt-Rauf

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