GLORIA M. CORUZZI
Carroll & Milton Petrie Professor
New York University
Center for Genomics and Systems Biology
12 Waverly Place, New York, NY 10003

gloria.coruzzi@nyu.edu
Lab web site: http://coruzzilab.bio.nyu.edu
Office: 212-998-3963 Fax: 212-995-4986

ORCID ID: 0000-0003-2608-2166

- List of citations from Google Scholar

Education

New York University School of Medicine	**Ph.D.** Cell & Molecular Biology
1976 - 1979	**Thesis Advisor**: Dr. Alexander Tzagoloff
	Field: Molecular-genetics of yeast mitochondrial DNA
Fordham University	**B.S. Biology**, cum Laude, in cursu Honorum
1972 - 1976	Sr. Thesis Mentor: Dr. E. Ruth Witkus,
Hunter College High School	Class of 1972

Appointments

1991 - present	**Carroll & Milton Petrie Professor of Biology** New York University, Center for Genomics and Systems Biology
2003 - 2011	**Chair**, New York University, Department of Biology
1990 - 1991	**Associate Professor**, The Rockefeller University Laboratory of Plant Molecular Biology
1983 - 1989	**Assistant Professor**, The Rockefeller University Laboratory of Plant Molecular Biology
1980 - 1983	**NIH Post-doctoral Fellow**, Rockefeller University **Field**: Plant Molecular Biology, Advisor: Nam-Hai Chua
1979 - 1980	**Postdoctoral Research Associate**, Columbia University **Field**: Yeast Molecular-Genetics, Advisor: Alexander Tzagoloff
1976 - 1979	**NIH Pre-doctoral Fellow**, New York University School of Medicine Department of Cell Biology (Chair, David Sabatini)

Honors and Awards

Member, The National Academy of Sciences, Plant Biology (Section 25), April 30, 2019
Distinguished Counselor to the Board, The New York Botanical Garden, 2017 – present.
Stephen Hales Prize, American Society of Plant Biology, June 28, 2016
Fellow of the American Society of Plant Biologists (ASPB), 2010
Fellow of the American Association for the Advancement of Science (AAAS),
Biological Sciences (Section G), September 20, 2005
Fellow of Agropolis Foundation, CNRS, Biochem, Physiol & Mol. Biol. of Plants, Montpellier, FR, 2012
Carroll and Milton Petrie Chair in Biology, NYU, 1996- present
Herbert and Margaret Sokol Faculty Award in the Sciences, NYU, 1996
CNR Fellow, Research Advances for Innovations in Agriculture, La Sapienza, Roma, 1995

Editorial Boards and Affiliations

Editorial Board, The Proceedings of the National Academy of Sciences, 2019-2022
Affiliate Faculty, Center for Data Science, NYU Courant Institute, 2013-present
Associate Editor G3: Genes, Genomes, Genetics (Genetics Society of America) 2011-present
Editorial Board, Trends in Plant Science, 2004-2010
Editorial Board, Current Opinions in Plant Biology, 1998-2010

Associate Editor, Plant Physiology, Two Terms: 1992-1998 & 2001-2005
Editorial Advisory Board, The Plant Journal, 1991-1999

Scientific Advisory Boards (selected)

DOE JGI (Joint Genome Institute) Scientific Advisory Committee (SAC) 2019 – present.
DOE Joint Genome Institute (JGI) Plant Program Advisory Board; 2015-2018
PivotBio – Scientific Advisory Board – 2018- present.
The Arabidopsis Information Portal (AIP), Scientific Advisory Board; 2012-17
International Arabidopsis Informatics Consortium (IAIC) Scientific Board, 2012-17
Donald Danforth Plant Science Center, Scientific Advisory Board, St. Louis, MO, 2012-15
New York Botanical Garden, Member of the Corporation of the, 2008- present
International Society of Plant Molecular Biology, Board Member, 1996-2000
North American Arabidopsis Steering Committee, 1994-1997
International Society of Plant Molecular Biology, Board of Directors, 1996-1999

Bio-sketch: (also see Wikipedia https://en.wikipedia.org/wiki/Gloria_M._Coruzzi).
Dr. Coruzzi is currently the Carroll & Milton Petrie Professor at New York University's Center for Genomics and Systems Biology. Her research in Plant Systems Biology combines genomic, bioinformatic, and system biology approaches to identify gene networks involved in biological regulatory mechanisms controlling nitrogen use efficiency. A native New Yorker, Dr. Coruzzi received her Ph.D. in Molecular & Cell Biology at New York University School of Medicine in yeast genetics, where she decoded the yeast mitochondrial genome. These studies revealed that TGA codes for tryptophan in yeast mitochondria, a discovery subsequently found in humans. As post-doctoral fellow at Rockefeller University (1980-83), she began studies of plant molecular biology by cloning one of the first plant nuclear genes. As an Assistant and then Associate Professor at Rockefeller University, Dr. Coruzzi began her studies of the genes in the nitrogen assimilatory pathway. Since joining NYU as a Full Professor in 1993, Dr. Coruzzi's lab has initiated genomic and systems biology approaches in Arabidopsis and other plant species to study gene regulatory networks underlying NUE. This work has included the development of new bioinformatic and systems biology approaches. **The over-arching achievement** of Dr. Coruzzi's research has been to develop Systems Biology approaches to predictively model how internal and external perturbations affect processes, pathways & networks controlling plant metabolism, growth and development. Her current studies exploit *time* - the 4th and largely unexplored dimension of transcriptional networks - to temporally perturb TF function and to predict and validate dynamic GRNs models that can forecast network states at future time-points, a major goal of systems biology. Dr. Coruzzi's system biology studies involve **collaborations** with colleagues at NYU Courant Institute for Math & Computer Science. Dr. Coruzzi is also engaged in a collaborative NSF Plant Genome Project on the Comparative Genomics of Seed Evolution with co-PIs at the New York Botanical Garden, the American Museum of Natural History, and Cold Spring Harbor labs. Dr. Coruzzi's research is **funded** by the National Institutes of Health, the NSF Plant Genome Program, the Department of Energy and the Zegar Family Foundation. Dr. Coruzzi was named an *American Association for the Advancement of Science* Fellow in 2005, a *Fellow of the American Society of Plant Biology* in 2010, was awarded the *ASPB Stephen Hales Prize* in 2015, was named Distinguished Counselor to the Board, The New York Botanical Garden in 2017, and was elected to the ***National Academy of Sciences***, Plant Biology Section in 2019. Coruzzi currently serves on several science editorial boards including; The Proceedings of the National Academy of Science, G3: Genes, Genomes and Genetics, and scientific advisory boards including the DOE Joint Genome Institute (JGI) Scientific Advisory Committee and their Plant Program Advisory Board. In addition to her research, Prof. Coruzzi is devoted to mentoring undergraduate and high school STEM students to apply computational approaches to biology.

FUNDING: Grant Support

Current:

NSF-PGRP: IOS - 1840761 Coruzzi (PI) 04/01/2019 - 03/31/2023
National Science Foundation, Integrative Organismal Systems
Title: RESEARCH-PGR: Uncovering the molecular mechanisms that integrate nutrient and water dose sensing and impact crop production
PI: Gloria Coruzzi, **Co-PIs:** Dennis Shasha (NYU Courant), Jean-Michel Ané (University of Wisconsin–Madison), Amelia Henry (IRRI, Philippines)

Description: In this proposal, we show that genes responding to the integration of N and W signals – modeled as N/W or NxW interactions - can predict crop outcomes in field tests. We aim to translate these new basic principles of N-nutrient dose sensing to rice production - a staple for 3.5 billion people. Thus, our proposal resides in Pasteur's quadrant – the scientific space where basic scientific discoveries have applied outcomes.

Zegar Family Foundation A16-0051 **Coruzzi (PI) 09/01/2019- 08/31/2023**
Title: Evolutionary Genomics of Drought and Low Nitrogen Adaptation: Translation from bench-to-field.
PIs: Gloria Coruzzi and Michael Purugganan
Description: In this grant, we translate our findings on the genes involved drought and N-use to real world outcomes. Here, we provide a road-map for generating water and nitrogen use efficient rice varieties. This will be achieved through continuing our partnership with IRRI (Philippines), as well as conducting new field trials in Tanzania (African rice). We will also functionally test our candidate genes associated with Atacama desert adaptation in a model grass (Brachypodium) to identify genes that promote water and nitrogen use efficiencies - candidates for crop breeding.

NSF-PGRP: IOS- 1758800 Coruzzi (Co-PI) 09/01/2018-08/31/2022
National Science Foundation, Integrative Organismal Systems
Title: RESEARCH-PGR: Living Fossils: Applying advances in single molecule sequencing to decode large and complex genomes of ancient plant lineages
PI: Richard McCombie (CSHL), **Co-PIs:** Gloria Coruzzi (NYU), Michael Schatz (John Hopkins University), Damon Little, and Dennis Stevenson (NYBG)
Description: This proposal focuses on "living fossil" gymnosperm species that have survived with little to no change in morphology since their appearance in the Devonian. They predate dinosaurs, having survived dramatic global changes and 5-6 mass extinctions. We will contrast four pairs of "living fossil" gymnosperms with their closest radiated lineages.

DOE-BER: DE-SC0014377 Coruzzi (PI) 08/15/2015 – 08/14/2020
Department of Energy, Biological and Environmental Research (BER)
Title: *EvoNet*: A Phylogenomic and Systems Biology Approach to Identify Genes Underlying Plant Survival in Marginal, Low-N Soils.
PI: Gloria Coruzzi (NYU), **Co-PIs**: R. Gutiérrez (Pontificia Universidad Católica de Chile), D. Stevenson (New York Botanical Garden), R. DeSalle (American Museum of Natural History), W.R. McCombie (Cold Spring Harbor Laboratory), JM Ané & Heidi Kaeppler (University of Wisconsin–Madison), Kranthi Varala (Purdue).
Description: This grant exploits a phylogenomic pipeline we developed to identify the genes that underlie species divergence. We apply this approach to identify genes that enable species to survive in marginal soils challenged for water and nitrogen resources. **Press on DOE-BER Sustainability Awards.**
http://genomicscience.energy.gov/sustainability/SustainabilityAwards_15flyer.pdf

NSF-PGRP: IOS-1339362 Coruzzi (PI) 09/01/2014 – 08/31/2019
National Science Foundation, Integrative Organismal Systems (IOS)
Title: **NSF Plant Genome**: *NutriNet*: A Network Inspired Approach to Improving Nutrient Use Efficiency (NUE) in Crop
PI: Gloria Coruzzi, **Co-PIs**: Dennis Shasha (NYU Courant), Stephen Moose (Univ. Illinois), Ying Li (Purdue)
Description: This grant transfers network knowledge from Arabidopsis to maize to identify core networks that regulate nitrogen use efficiency in crops.

NSF-PGRP: IOS-1339362 Coruzzi (PI) 09/01/2014 – 08/31/2019
National Science Foundation, Integrative Organismal Systems (IOS)
Title: NSF GOALI SUPPLEMENT: *Nutri-Net*: A network-inspired approach to improving nutrient use efficiency in crop plants
PI: Gloria Coruzzi, **Co-PIs**: Dennis Shasha (NYU Courant), Stephen Moose (Univ. Illinois)
Description: This supplement will fund a university-industry partnership to test the function of maize transcription factor (TF) candidates in a rapid cell-based system called *TARGET (Transient Assay Reporting the Genome-wide effects of Transcription factors)*.

Zegar Family Foundation (A16-0051) **Coruzzi (PI) 09/01/2015- 08/31/2019**
Title: Evolutionary Genomics of Low Nitrogen Adaptation

PIs: Gloria Coruzzi and Michael Purugganan
Description: This project will address the main challenge of growing crops in marginal lands, low N, drought and the combination of these two factors in limiting plant productivity. ***Our project will identify the genes and networks that enable plants to adapt and thrive in marginal low-N soils using a combined evolutionary genomic and network approach.*** The **outcome of this project** will be characterization of gene networks that will identify causative genes (e.g. master transcription factors that activate an entire suite of genes), as well as the downstream response genes that are useful as biomarkers in molecular breeding programs aimed to develop crops that thrive on marginal low-N soils.

NSF - MCB-1412232 Coruzzi (PI) 07/01/2014 – 06/30/2019
National Science Foundation, Molecular and Cellular Biosciences
Title: Prospecting for Resources: A Systems Integration of Local and Systemic Nutrient Signaling
PI: Gloria Coruzzi, **Co-PI**: Dennis Shasha (NYU Courant)
Description: Exploiting a unique split-root system, this grant tests the interplay of inter-organ systemic signaling and local signaling involved in root foraging for the growth-limiting nutrient nitrogen (N) in a complex environment.

Completed Grant Support:

DOE-BES: DE-FG02-92ER20071 Coruzzi (PI) 12/01/14 – 05/31/18
Department of Energy, Energy Biosciences
Title: Asparagine Synthetase Gene Regulatory Network and Plant Nitrogen Metabolism
PI: Gloria Coruzzi
Description: This project concerns the mechanisms by which light and carbon signals affect the genes involved in asparagine synthesis and catabolism. Using a genetic approach, we identified a role for a histone methyltransferase in this response, and have characterized its role in mediating changes in chromatin state in response to carbon and light signals.

NSF - MCB-1158273 Coruzzi (PI) 04/01/2012 – 03/31/2015
National Science Foundation, Molecular and Cellular Biosciences
Title: A Systems Approach to the NPK Nutriome and its Effect on Biomass
PI; Gloria Coruzzi**, Co-PI**: Dennis Shasha (NYU Courant)
Description: This grant explores the molecular underpinnings of the nitrate, phosphate, potassium (NPK) effect and tests the hypothesis that the enhancement of biomass under low-N conditions is the result of NPK interactions at the *signaling* level.

5R01 GM032877-28 Coruzzi (PI) 05/01/2009 – 04/30/2015
NIH - National Institutes of Health
Title: A Systems Approach to Regulatory Networks Controlling N-assimilation
PI: Gloria Coruzzi
Description: This grant to develop Systems Biology approaches to identify transcriptional networks regulating N-assimilation into amino acids as a model metabolic regulatory network in plants.

NSF - MCB-0929338 Coruzzi (PI) 07/15/2009 – 06/30/2015
National Science Foundation, Molecular and Cellular Biosciences
Title: **Arabidopsis 2010**: Nitrogen Networks in Plants
Co-PIs: D. Shasha (NYU Courant), N. Crawford (UCSD)
Description: This grant concerns the mechanisms by which nitrogen signaling mediates genome-wide changes affecting plant growth and development, with a special emphasis on root development explored using ecotypes.

NSF- PGRP: IOS-0922738 Coruzzi (PI) 08/01/2010 – 07/31/2014
National Science Foundation, Integrative Organismal Systems
Title: **NSF Plant Genome**: GEPR Genomics of Comparative Seed Evolution
Co-PIs: D. Shasha (NYU Courant), D. Stevenson (NYBG), R. McCombie (CSHL), R. DeSalle (AMNH)
Description: The objectives of this project are to develop datasets (deep-transcriptome), bioinformatic resources, and informatic pipelines that will enable functional trait-to-gene predictions based on genome-wide phylogenies and/or machine

learning approaches. This project largely focuses on plants from the Gymnosperm clade of the seed plants and is performed is in collaboration with the NYBG, AMNH and CSHL.

NSF - DBI-0445666 Coruzzi (PI) 06/01/05 – 11/31/11
NSF Database Activities
Title: Conceptual Data Integration for the Virtual Plant
CoPIs: R. Gutierrez (NYU Biology), D. Shasha (NYU Courant)
Description: This grant develops systems biology approaches to analyze, visualize and integrate diverse genomic datasets into regulatory networks, to derived testable hypothesis in a systems biology cycle.

POST-DOCTORAL FELLOWS:

NIH NIGMS Fellowship 1F32GM116347 1/2016 – 1/2019
Title: "Uncovering the molecular basis for dynamic regulatory networks in plants"
Awarded to: Matthew Brooks; Sponsor; Gloria Coruzzi

CNRS Marie Curie Fellowship 9/2015 – 8/2019
Title: "Nitro Systems: Reaching the roots of systemic nitrogen (N) signaling in plants"
Awarded to: Eleonore Bouguyon, Sponsors; Gloria Coruzzi (NYU); Sandrine Ruffel (Montpellier)

EMBO Long-term Fellowship ALTF 1449-2015 1/2016 – 1/2019
Title: "Nutrient signaling in plants: "Hit and Run" model as a master regulatory mechanism"
Awarded to: Sophie Leran; Sponsor: Gloria Coruzzi (NYU); Benoit Lancombe (Montpellier)

Post-doctoral Fellowships to Coruzzi Lab Alumni:
Amy Marshall-Colon - NIH-NIGMS Fellow, 2012-2014.
Daniela Ristova - Fulbright Fellow, 2009-2013.
Gabriel Krouk- Marie Curie Fellow, 2007-2009.
Miriam Gifford - EMBO Fellow, 2006-2008.
Manpreet Katari- NIH-NIGMS Fellow, 2003-2006.
Eric Brenner- NIH-NIGMS Fellow, 2000-2003.

D. PATENTS:

Patent Application No. 16/204,558 Title: 'Nutrient Sensing In Crop Production'
Inventor(s): Coruzzi, Swift et al, Filed: November 29, 2018
US-2019-0161812-A1, Published May 30, 2019

Patent No. 15/548,326: Transgenic plants and a transient transformation system for genome-wide transcription factor target discovery. (Issued May 10, 2018)
Inventors: G Coruzzi, K Birnbaum, B Bargmann, G Krouk, M Katari, M Obertello

Provisional Patent Application No. 61/865,438: Transgenic plants and a transient transformation system for genome-wide transcription factor target discovery. (Issued June 13, 2014)
Inventors: Coruzzi, G; Krouk G, Bargmann B and Birnbaum K; Filed

Patent No. 7,805,703: System and method for representing the interactions between multiple inputs and at least one output. (Issued Sept 28, 2010) Inventors: Dennis Shasha, Gloria Coruzzi, Rodrigo Gutierrez

Patent No. 7,739,053 B2: System and Process of determining a biological pathway based on a treatment of a biological specimen. (Issued June 15, 2010)
Inventors: Peter Palenchar, Dennis Shasha, Michael Chou, Marc Rejali, Yair Dorsett, Andrei Kouranov, Gloria Coruzzi

Patent No. 60/919,818: Methods of affecting nitrogen assimilation in plants (Issued March 23, 2007)
Inventors: G. Coruzzi, D. Nero, and R. A. Gutierrez,

Patent No. 60/918,443: Methods of affecting plant growth with microRNAs (Issued March 16, 2007)
Inventors: G. Coruzzi, K.D. Birnbaum, M. Gifford, R.A. Gutierrez

Patent No. 6,177,25B1: Nitrogen regulatory protein PII and genes encoding same (Issued Jan 23,

2001) Inventors: Hsieh MH, Lam HM, Coruzzi G.

Patent No. 5,824,8676: Plant glutamate receptors (Issued Oct 20, 1998) Inventors: HM Lam, Oliveira I, Hsieh MH, and Coruzzi G,

Patent No. 5,955,651: Transgenic plants that exhibit enhanced nitrogen assimilation (Issued Sept 21, 1999) Inventors: G. Coruzzi and T. Brears.

Patent No. 5,595,896: Expression of heterologous genes in transgenic plants and plant cells using plant asparagine synthetase promoters. (Issued Jan. 21, 1997) Inventors: G. Coruzzi and F.Y. Tsai

Patent No. 07/448,036: Novel organ-specific plant promoter sequences Inventors: G. Coruzzi, J. Edwards, E. Walker

Patent No. 5,256,558: Genes encoding plant asparagine synthetase (Issued 10/26/93) Inventors: G. Coruzzi, F.Y. Tsai.

PLENARY AND INVITED LECTURES:

2020

2st International Plant Systems Biology Meeting: Venice, Italy
Sept 21-25, 2020. (Co-organizer)

2019

Plant Genomes in a Changing Environment conference, October 16-18, 2019, Hinxton, UK. Plenary Speaker.

Nature Genetics-NYU Conference: Plants of the Future, June 13-14, 2019 (Co-organizer)

Experimental Biology, **EB2019**. **American Society for Biochemistry and Molecular Biology,** April 6-9, 2019

UC San Diego Center for Circadian Biology Symposium, Feb. 13-15, 2019, Plenary Speaker
Invited Speaker: Breakthroughs in Plant Biology/Biochemistry, Orlando, FL

CSHL meeting on "Systems Biology: Networks". March 20-23, 2019. Plenary Speaker.

2015-2018

1st International Plant Systems Biology Meeting: A Jacques Monod Conference,
Roskoff, FR Sept 10-14, 2018. Speaker and co-organizer

Gordon Conference on Plant Molecular Biology: Dynamic Plant Systems June 10-15,2018;
Chair, Gloria Coruzzi (NYU); Vice-chair , Rob McClung (Dartmouth)

XXVI Plant & Animal Genome (PAG) Meeting (San Diego, CA, January 13-17, 2018)
Plenary Lecture: Plant Systems Biology

Stephen Hales Award Lecture, ASPB 2017 Annual Meeting,
Honolulu, Hawaii (June 24-28, 2017)

International Workshop: Plant Genomics and Systems Biology: genotype-to-phenotype map.
NYU, May 12-13, 2017**(co-organizers: M. Purugganan & Coruzzi G)**

JGI-DOE- 12th Annual Genomics of Energy and Environment", March 21-23, 2017, Walnut Creek, CA;
Plenary Talk: "EvoNet: A Phylogenomic and Systems Biology Approach to Identify Genes Underlying Plant Survival in Marginal, Low-Nitrogen Soils"

EMBO Conference: Nitrogen 2016. Aug. 22-26, 2016; Montpellier, FR. Invited Speaker

Gordon Conference on Plant Molecular Biology: June 12-17, 2016;
Coruzzi *Vice Chair* (with Chair, M. Guerinot, Dartmouth)

DOE Genomic Science Symposium: March 6-8, 2016: Tysons Corner, MD
Session: "Development of Sustainable Bioenergy Cropping Systems in Changing Environments"
Speaker: Gloria Coruzzi (NYU): "EvoNet: A Phylogenomic and Systems Biology Approach to Identify Genes Underlying Plant Survival in Marginal, Low-Nitrogen Soils"

ISPMB 2015, Oct 25-30, 2015, Brazil; Co-Chair & Speaker, Session: Networks in Plant Biology

ICAR 2015, **The 26th International Conference on Arabidopsis Research**, Paris FR, July 2015
Plenary Speaker, Nutrition and Metabolism.

The Plant Center Spring Symposium, University of Georgia, April 2015. (Invited Speaker)

2010-2014

Gordon Conference on Plant Molecular Biology: Holderness School, NH (July 20-25, 2014)
Keynote Speaker "Decision-Making Pathways, Networks, and Models in Plant Biology",

ICREA Workshop: From model systems to crops, challenges for a new era in plant biology.
Speaker: Barcelona, May 7 - 8, 2014.
International Nitrogen 2013 Meeting, *Speaker & Session Chair*; Chile, Nov. 18-22, 2013
Storer Lecture, "Major Issues in Modern Biology", UC Davis, March 18, 2013
North Carolina Plant Molecular Biology Consortium Speaker, April 22, 2013.
Agropolis Foundation Lecture, CNRS INRA, Montpellier, May 23, 2012.
10th International Congress on Plant Molecular Biology, Oct 21-26, 2012, Jeju Korea(Plenary)
13th Symposium: Danforth Plant Science Center St. Louis, MO "Plant Genomes to Phenomes", Sept. 2011.
CSHL Plant Genome Course: Plant Systems Biology, July 2010
Mendel Biotechnology, March 2010
NYU Abu Dhabi, Genomics & Systems Biology Meeting, January 2010

2005-2009
CSHL Plant Genomes: Genes, Networks and Applications, March 4-7, 2009
CSHL Banbury Meeting: "Nutrient Sensing In Plants", 21-24 September 2008
ICAR: 19th International Conference on Arabidopsis Research, Montreal, July 23-27, 2008,
Session Chair and Plenary speaker: Systems Biology Plenary Session
Society for Experimental Biology (UK) Symposium on Systems Biology the Society
Marseille, France 7-9th July 2008 (Keynote speaker)
6th Annual Keen Lecture, UC Riverside, Genome Center Jan 18, 2008
Syngenta Fellows Symposium on Yield, Dec 18, 2007. Invited speaker.
CSHL 6th Plant Genome Meeting March 15-22, 2007, **co-organizer**
Keystone Symposium, Systems Biology & Regulatory Networks, Mar 22-27, 2007, Steamboat Springs.
CSHL 5th meeting on Systems Biology: Regulation of Gene Expression March 28 - April 1, 2007.
Monsanto, Invited speaker, Plant Systems Biology, May 2007.
ISPMB Meeting; Plenary Speaker, Systems Biology, Adelaide, Australia Aug. 20-25, 2006
Society for Developmental Biology, Plenary Speaker, Ann Arbor MI, June 17-19, 2006
Systems Biology Symposium; Plenary Speaker, Plant Biotech Denmark, Nov 2005
2nd Tri-National Arabidopsis Meeting: Neuchâtel, Switzerland, Aug 24-27, 2005.
ASPB Meeting, Plenary Speaker, New Approaches for Integrating Plant Genomes & Function. Seattle, 2005
CSHL Arabidopsis Genome Course, Lecturer, July 2005
Frontiers in Plant Biology: Genomics & Beyond: Missouri Symposium, April 27-30, 2005

2002-2004
CSHL Plant Genome Meeting: From Sequence to Phenome, **Co-organizer** Dec. 12-14 2004,
7th Symp. Zurich-Basel Plant Science Center: Plant Systems Biology, Speaker, Dec 17, 2004
Salk Institute Plant Biology Biotechnology Symposium, Plenary Speaker, Oct. 2004
2nd EPSO Conference: "Interactions in Plant Biology", Speaker, Ischia, Italy, October 2004
5th Annual GARNET Meeting: Plant Gene Networks, Speaker, Leicester, UK Sept. 2004.
ICAR: 14th International Arabidopsis Conference, Plenary Speaker. Berlin, July 10-18, 2004.
Gordon Research Conference, Plant Molecular Biology, Invited Speaker, NH July 2004.
6th International Meeting on Nitrate Assimilation, The Netherlands, June 2004
7th International Congress of Plant Molecular Biology, Spain June 2003 Invited Speaker
22nd Symposium: Frontiers in Plant Biology: Systems based approaches Riverside CA, 2003
CSHL Plant Genomes: **Speaker & Chair**: Plant Evolutionary Genomics, Dec 2002
ICAR: 13th International Conference on Arabidopsis Research, Spain, June 2002
5th International Meeting on Nitrate Assimilation, Cordoba Spain, July 2002
Gordon Research Conference, Chair, Plant Molecular Biology, July 2002

GRANT ADVISORY PANELS AND WORKSHOPS
DOE: Genomic Science Symposium: March 6-9, 2016, Tyson Corner, VA
Speaker-Session: "Development of Sustainable Bioenergy Cropping Systems in Changing Environments"
NSF MCB, Chair, Committee of Visitors 2011
HHMI/ASPB Plant Biology Research Summit, Sept 22-24, 2011
NSF US-EU Taskforce on Plant Biotechnology: Barcelona, Speaker, June 2, 2010

NSF iPlant Meeting; CSHL, May 2008 (Session moderator; Systems Biology)
DOE Workshop on Carbon Cycling and Biosequestration, March 2008 (Panelist)
DOE GTL Workshop: Systems Biology Knowledgebase, May 2008 (Panelist)
NSF 2020 Workshop, Jan. 3, 2008 (co-organizer, Benfey & Estelle).
NSF: Joint AFGN/2010 Review Panel, May 15-18, 2007
NSF Bio Advisory Panel, Systems Biology- Invited Speaker, April 19, 2007
NSF Plant Cyberinfrastructure Meeting, Sept 2006.
NSF Workshop for a Plant Science Synthesis Center; Panel member, Oct. 17-19, 2005
NSF Arabidopsis 2010 Project Workshop, Aug 24-26, 2005
NSF US-EU Taskforce on Plant Biotechnology: Panelist, June 21-22, 2005
NSF TIGR Workshop: Data Integration & the *Arabidopsis* Community. Panelist, April 2005
DOE Workshop on Plant Systems Biology, Riverside CA Jan 2003
National Academy of Sciences: Workshop on National Plant Genomic Initiative, June 2002
Project 2010: NSF-workshop: "Functional Analysis of the Arabidopsis Genome, Jan 2000

INTERVIEWS:

NSF Science Nation:
Genomic science uncovered genes that enable plants to grow more with less fertilizer.
https://www.nsf.gov/news/special_reports/science_nation/fertilizergenomics.jsp

Slide Show: "A walk through Gloria Coruzzi's Plant Genome Wonderland"
http://www.nyu.edu/about/news-publications/news/2013/september/slideshow--a-walk-through-gloria-coruzzis-plant-genome-wonderlan.html

Campbell's Biology Textbook; 5th Edition:
http://bio2.shtechclub.org/cd/bc_campbell_biology_7/0,7052,4350315-,00.html

iPlant interview: http://www.iplantcollaborative.org/learn/media?p=Gloria%20Coruzzi

PUBLIC PRESS:

Two NYU Faculty Elected to the National Academy of Sciences
https://www.nyu.edu/about/news-publications/news/2019/april/two-nyu-faculty-elected-to-national-academy-of-sciences.html

DOE BER Sustainability Grant Award.
http://genomicscience.energy.gov/sustainability/SustainabilityAwards_15flyer.pdf

ASPB News: "**Coruzzi appointed Distinguished Counselor at New York Botanical Garden**
https://aspb.org/publications/aspb-news/#toggle-id-9

"Former lab partners reflect on Fordham's Influence"
http://news.fordham.edu/fordham-magazine/former-lab-partners-reconnect-reflect-on-fordhams-influence/

"Hit-and-Run" transcriptional control by bZIP1 mediates rapid nutrient signaling in Arabidopsis"
Para A, Li Y, Marshall-Colon A, Varala K, Francoeur NJ, Moran T, Edward MB, Hackley C, Bargmann B, Birnbaum K, McCombie M, Krouk G, and **Coruzzi M** (2014) "***Proc. Natl Acad Sci USA***, 2014, June 23, vol. 111(28); 10371–6. doi: 10.1073/pnas.1404657111 (**http://f1000.com/prime/718465473).**

- http://phys.org/news/2014-06-tom-sawyer-regulatory-protein-gene.html
- http://article.wn.com/view/2014/07/01/Tom_Sawyer_Regulatory_Protein_Initiates_Gene_Transcription_/
- http://www.nsf.gov/mobile/news/news_summ.jsp?cntn_id=131943&org=NSF&from=news
- http://f1000.com/prime/718465473

"Temporal transcriptional logic of dynamic regulatory networks underlying nitrogen signaling and use in plants".
Varala K, Marshall-Colón A, Cirrone J, Brooks MD, Pasquino AV, Léran S, Mittal S, Rock TM, Edwards MB, Kim GJ, Ruffel S, McCombie WR, Shasha D, Coruzzi GM (2018). ***Proc. Natl. Acad. Sci. U S A***. June 19, 2018. Vol 115 (25) 6494-6499. Published ahead of print May 16, 2018. PMID: 29769331

See commentary: Greenham K & McClung R (2018) "Time to build on good design: Resolving the temporal dynamics of gene regulatory networks" . ***Proc. Natl Acad Sci USA*** vol 115, no 25 6325-6327.

- https://twitter.com/PNASNews/status/998579295428767744
- https://www.sciencedaily.com/releases/2018/05/180514151918.htm
- https://phys.org/news/2018-05-biologists-id-temporal-logic-regulatory.html
- https://sciencenews.newspedia.online/2018/05/15/biologists-id-temporal-logic-of-regulatory-genes-affecting-nitrogen-use-efficiency-in-plants/
- http://news.agropages.com/News/NewsDetail---26318.htm
- http://www.isaaa.org/kc/cropbiotechupdate/article/default.asp?ID=16443
- http://www.canada-goosejackets.com.co/?p=62023
- http://www.purdue.edu/newsroom/releases/2018/Q2/method-for-identifying-key-regulator-genes-may-speed-improvements-in-fertilizer-use-and-other-efficiencies.html
- http://www.findclimateanswers.com/biologists-id-temporal-logic-of-regulatory-genes-affecting-nitrogen-use-efficiency-in-plants/
- https://twitter.com/howplantswork?lang=en
- https://www.researchgate.net/publication/325183037_Temporal_transcriptional_logic_of_dynamic_regulatory_networks_underlying_nitrogen_signaling_and_use_in_plants
- https://www.scoop.it/t/plant-evolution

"Water impacts nutrient dose responses genome-wide to affect crop production."
J. Swift, M. Adame, D. Tranchina, A. Henry, G. Coruzzi (2019) "***Nature Communications*** 2019 Mar 26;10(1):1374. doi: 10.1038/s41467-019-09287-7. PMID: 30914651

https://www.nature.com/articles/s41467-019-09287-7

- **Altmetric**: Water impacts nutrient dose responses genome-wide to affect crop production ***https://www.altmetric.com/details/57763406***
- **The Western Producer**: Rice genes responses to water and nutrients discovered https://www.producer.com/2019/05/rice-gene-response-to-water-and-nutrients-discovered/
- ***Science Daily:*** The sense of water -- and nitrogen: Studies uncover genome-wide responses that limit crop growth. Discovery has implications for global food production, sustainable agriculture
  - ***https://www.sciencedaily.com/releases/2019/03/190326122150.htm***
- The sense of water—and nitrogen: Studies uncover genome-wide responses that limit crop growth **Phys.org**
  - https://phys.org/news/2019-03-waterand-nitrogen-uncover-genome-wide-responses.html
- Uncovering Genome-Wide Responses That Limit Crop Growth **Technology Networks**
  - https://www.technologynetworks.com/tn/news/uncovering-genome-wide-responses-that-limit-crop-growth-317287
- The Sense of Water—and Nitrogen: Studies Uncover Genome-Wide Responses that Limit Crop Growth in Nutrient-Poor Soils **Newswise**
  - https://www.newswise.com/articles/the-sense-of-water-and-nitrogen-studies-uncover-genome-wide-responses-that-limit-crop-growth-in-nutrient-poor-soils
- The sense of water -- and nitrogen: Studies uncover genome-wide responses that limit crop growth **EurekaAlert!**
  - https://www.eurekalert.org/pub_releases/2019-03/nyu-tso032619.php
- The Sense of Water—and Nitrogen: Studies Uncover Genome-Wide Responses That Limit Crop Growth in Nutrient-Poor Soils **Environmental News Network**
  - https://www.enn.com/articles/57333-the-sense-of-water-and-nitrogen-studies-uncover-genome-wide-responses-that-limit-crop-growth-in-nutrient-poor-soils

- The sense of water—and nitrogen: Studies uncover genome-wide responses that limit crop growth
- **Long Room**
    - https://www.longroom.com/discussion/1421666/the-sense-of-water-and-nitrogen-studies-uncover-genome-wide-responses-that-limit-crop-growth

"Network Walking charts transcriptional dynamics of nitrogen signaling by integrating validated and predicted genome-wide interactions"
MD. Brooks, J Cirrone, AV. Pasquino, J Swift, JM Alvarez, S Mittal, CL Juang, K Varala, R A. Gutiérrez, G Krouk, D Shasha, and G M Coruzzi (2019) ***Nature Comm.*** (2019) 10 (1): 1569.

- Nat Commun. 2019 Apr 5;10(1):1569. doi: 10.1038/s41467-019-09522-1.
- **Altmetric**: http://www.altmetric.com/details/58599830

OUTREACH ACTIVITIES:

Science In Real Life (IRL) Project Video

Molly Edwards (Coruzzi lab, Research Tech):

- DNA extraction https://drive.google.com/file/d/0BxpPRwI9dZDWZjUxcDZDVmREY3c/view?usp=sharing
- DNA https://www.youtube.com/watch?v=YtiVBg6ynqw
- PCR https://www.youtube.com/watch?v=lKKNgfpJN0g
- https://www.youtube.com/channel/UCSarDm_DBa-OiD9M7iWLcpA/videos

Joseph Swift (PhD student, Coruzzi Lab)

https://www.sciencemag.org/author/joseph-swift

J. Swift (7th February 2015). *Accessible Primer Shines Light on Rare Metals*. **The Australian**: p10.

J. Swift (November 2014). *The Point of it All*, Science, 246(6211): 882. https://www.sciencemag.org/careers/2014/11/point-it-all

J. Swift (March 2016). Genomics: The Social Gene, *Science*, 35. http://science.sciencemag.org/content/351/6280/1403

J. Swift (Feb 2017). History: The tie that binds. Book review; Convergence The Idea at the Heart of Science *Peter Watson* Simon and Schuster, 2017. 573 pp. http://science.sciencemag.org/content/355/6326/701

High School Intern Program: Dr. Coruzzi mentors High School students for the national science competitions. Dr. Coruzzi hosts an annual workshop for 40+ High School Students from Stuyvesant High School, a premier NYC public school specializing in math and science. This effort takes students who are learning Computer Science in High School, and teaches them how to apply it to problems in Biology. This outreach activity produced *six* Intel Semi Finalists (out of 300/year nation-wide), *two Intel finalists* (out of 40 finalists/year nation-wide), and two Siemans' semi-finalists. Angela Fan, an Intel *and* ISEF finalist (International Science and Engineering Fair) was also selected to attend the Nobel Prize Ceremony on Dec 5, 2012 for her project: "*Integration of responses within and across Arabidopsis natural accessions uncovers loci underlying root systems architecture*". Sam Goldman (Paul D. Schreiber HS) was a Siemans Semi-Finalist and LISEF Finalist (Long Island Science and Engineering Fair) in 2014 for his project, "*A time-series transcriptome analysis of cassava varieties challenged with Ugandan cassava brown streak virus*". Most recently, Jenny Leixin Gao (Stuyvesant HS) was named a Siemans' *and* Regeneron Semi-Finalist in 2018 for her project "*Quantifying the impact of nitrogen use on photosynthetic rates by live imaging*." Others HS interns include Jenny Yeoh-Wang (Chapin HS, then Darmouth), Ariel Levy (Stuyvesant HS, now MIT), Jenny Gao (Sieman's semi-finalist, Regeneron Semi-finalists) now MIT. Jack Stevenson (Stuyvesant HS, now Harvard) & Kahmun Lo (Stuyvesant HS, now Columbia School of Engineering). These HS students are co-authors on publications in Molecular Ecology, PNAS, and PLoS Genetics.

High School Student Intel and Sieman's Prize Winners: To date, several past High School interns from our lab are currently enrolled in top-tier colleges majoring in computation and natural science.

- Angela (Hui Hui) Fan (Harvard '16): Intel and ISEF Finalist 2012

- Jack Stevenson (Harvard '17)
- Sam Goldman (Harvard '20; MIT PhD Program), Sieman's Semi-Finalist 2014
- Ariel Levy (MIT '21)
- Jenny Yeoh Wang (Dartmouth '18)
- Kahmun Lo (Columbia '19).
- Jenny Lexin Gao (MIT '22) Regeneron & Siemans Semi-finalist 2018

Angela (Huihui) Fan (Stuyvesant HS); Harvard College 2016, Current: FaceBook Data Science (AI**)**

Publication: Rosas U, Cibrian-Jaramillo A, Ristova D, Banta J, Gifford M, **Fan HA**, Zhou RW, Kim G, Krouk G, Birnbaum KD, Purugganan MD, Coruzzi G (2013). "Integration of responses within and across Arabidopsis natural accessions uncovers loci underlying root systems architecture". ***Proc. Natl. Acad. Sci. USA***. 2013 Sep 10;110 (37):15133-8**.**

Intel and ISEF Finalist & Siemans Semi-finalist (2011-2012)

Angela Fan attends Nobel Ceremony: http://www.biology.as.nyu.edu/object/cgsb.news.nobel
Angela fan interview for ISEF: https://www.youtube.com/watch?v=eNV61AFbB30
Angela Fan meets Obama for INTEL: http://www.nyu.edu/about/news-publications/news/2012/03/19/nyc-area-high-school-student-working-with-nyu-biologists-captures-third-place-at-intel-science-talent-search.html

Sam Goldman (Paul D. Schreiber HS): Current: Harvard College (Class of 2019); PhD Program MIT (Current)

Publication: Amuge T, Berger DK, Katari MS, Myburg AA, Goldman SJ and Ferguson ME (2017) " A time series transcriptome analysis of cassava (*Manihot esculenta* Crantz) varieties challenged with Ugandan cassava brown streak virus". *Scientific Reports* 7, Article number: 9747(2017). doi:10.1038/s41598-017-09617-z

Siemans Semi-Finalist, 2014

http://patch.com/new-york/portwashington/schreiber-seniors-named-siemens-semifinalists
LISEF Long Island Science and Engineering Fair Finalist 2014
Sam Goldman interview for Scholar Athlete Award:
http://longisland.news12.com/sports/high-school/news-12-long-island-scholar-athlete-1.9516124

Jenny Leixin Gao (Stuyvesant HS)- Currently: MIT (Class of 2022):

Project Title: "Quantifying the impact of nitrogen use on photosynthetic rates by live imaging."
Awards: Siemans Semifinalist, 2017; Regeneron Semi Finalist 2018.

COLLABORATORS:

Kenneth Birnbaum, New York University
Nigel Crawford, UCSD, CA
Robert DeSalle, AMNH
Pamela Green, U. Delaware
Gabriel Krouk, B&PMP, Montpellier, FR
C Robertson McClung, Dartmouth, NH
Hong-Ming Lam, U. Hong Kong
Robert Martienssen, CSHL
Richard McCombie, CSHL
Rodrigo Gutierrez, U Catolica de Chile
Sandrine Ruffel, B & PMP, Montpellier, FR
Dennis Shasha, NYU Courant Institute of Math
Dennis Stevenson, NY Botanical Garden, NY
Milos Tanurdzic, Cold Spring Harbor Lab, NY
Daniel Tranchina, NYU Courant Institute of Math
Jean Michel Ane, University of Wisconsin
Damon Little, NYBG
Heidi Kaeppler, University of Wisconsin
Michael Purugganan, NYU
Stephen Moose, U. Illinois

GRADUATE ADVISOR AND POSTDOCTORAL SPONSORS:

PhD thesis advisor: Dr. Alexander Tzagoloff, Columbia University, NY
Postdoctoral advisor: Dr. Nam Hai Chua, Rockefeller University, NY

THESIS ADVISOR AND POSTGRADUATE-SCHOLAR SPONSOR TO:
See Academic Tree of former Coruzzi lab members: http://academictree.org/plantbio/tree.php?pid=628794'

Ph.D. Students Mentored 2001-2010

Elsbeth Walker	PhD	1990	Professor, U Mass Amherst
Fong-Ying Tsai	PhD	1990	Research Scientist, Genetech
Carolyn Schultz	PhD	1992	Professor, University of Adelaide
Nora Ngai	PhD	1997	Sr. Scientist, Columbia University
Rosana Melo	PhD	1999	Research Scientist, Monsanto/Bayer
Barbara Miesak	PhD	2002	Associate Researcher, Rutgers University
Annemarie Costello	PhD	2002	Instructor, Ross School East Hampton, NY
Lisa Franchi	PhD	2003	Research Scientist, U. Rome, La Sapienza
Nyree Conard Zerega	PhD	2003	Director Master's Program in Plant Biology and Conservation, NorthWestern University
Joanna Chiu	PhD	2004	Associate Professor, Dept Entomology, UC Davis
Chelsea Specht	PhD	2004	Barbara McClintock Professor, Cornell University
Michael Shin	PhD	2005	Faculty, Messiah College, PA
Ming Hsiun Hsieh	PhD	2006	Associate Professor, Taiwan University
Lauren Raz	PhD	2007	Curator of Herbarium, Fairchild Botanic Garden, FL
Eduardo dela Torre	PhD	2008	Instructor, Baruch College
Damion Nero	PhD	2009	Statistician Programmer**,** FOJP Service Corp
Daniela Ristova	PhD	2014	Post-doc; Gregor Mendel Institute, Vienna
Joseph Swift	PhD	2018	Post-doc, SALK institute (Joseph Ecker Lab)
Anna-Lena Schinke	PhD	current	

Post-doctoral Fellows Trained:

Scott Tingey	Program Leader, DuPont
Janice Edwards	Program Leader, Monsanto/Bayer
Igor Oliveira	Program Leader, DuPont
Timothy Brears	CEO, Xenion, UK
Gabrielle Tjaden	
Susan Martino-Catt	Program Leader, Monsanto
Karen Coschigano	
Lee Meisel	Professor, University of Chile, Santiago
Hon-Ming Lam	Professor, Chinese U. Hong Kong
Laurence Lejay	Senior Scientist, B&PMP, Montpellier, FR
Peter Palenchar	Former NIH NRSA Fellow: Current: Visiting Assistant Prof, Villanova
Andrew Koruanov	Research Scientist, Monsanto/Bayer
Eric Brenner	Former NIH NRSA Fellow: Current: Clinical Asst. Professor of Biology, NYU
Miriam Gifford	Former EMBO Fellow: Current: Associate Professor, U Warwick, UK
Mariana Obertello	Research Scientist, U Argentina
Manpreet Katari	Former NIH NRSA Fellow: Current: Clinical Assoc. Professor of Biology, NYU
Karen Thum	NIH Re-entry Grant: Dept of Biology (Scott Michael lab), Indiana University
Rodrigo Gutierrez	Associate. Prof, U Catolica, Chile, HHMI International Fellow
Indrani Mukerjee	
Gabrielle Krouk	Marie Curie Fellow; Current: PI, CNRS, B&PMP, Montpellier, FR
Sandrine Ruffel	PI, INRA, B&PMP, Montpellier, FR
Amy Marshall-Colon	NIH NRSA Fellow: Current: Assistant Prof, U Illinois, Champagne Urbana
Alessia Para Gallio	Associate Research Professor, Northwestern University
Joan Doidy	Assistant Prof., UMR CNRS 7267 EBI Ecologie et Biologie des InteractionsUniversity of Poitiers, FR
Kranthi Varala	Assistant Professor, Purdue University, Dept of Hort.
Ying Li	Assistant Professor, Purdue University, Dept of Hort.
Eleonore Bouyguon	Marie Curie Fellow

	Associate Professor of Life and Earth Sciences, Dept Biology, Faculty of Sciences &technology, University of La Réunion, FRANCE
Sophie Leran	EMBO Fellow Current, Researcher, CIRAD, French Agricultural Research Center for International Development)
Matthew Brooks	Current - NIH NRSA Fellow
Chia-Yi Cheng	Current
Gil Eshel	Current
Laurie Leonelli	Current
Viviana Araus	Current
Jose Alavrez	Current
Ji Huang	Current

PUBLICATIONS: **ORCID ID: 0000-0003-2608-2166**

Complete List of G. Coruzzi Published Work:
http://www.ncbi.nlm.nih.gov/pubmed/?term=Coruzzi+G[Author]+AND+%28plant+OR+genome%29

144. JM Alvarez, AL Schinke, MD Brooks, A Pasquino, K Varala, G Krouk, A Krapp and GM Coruzzi. (2019) "Early and transient interactions of the master regulator NLP7 mediate a dynamic nitrogen-dependent transcriptional cascade." ***Nature Comm*** (In Revision)

143. Y Li, M Brooks, J Yeoh-Wang, R M. McCoy, T Rock, A Pasquino, CI Moon, RM Patrick, M Tanurdzic, S Ruffel, J R. Widhalm, WR McCombie, GM Coruzzi (2019) "The Histone Methyltransferase SDG8 Mediates Nitrate Signaling by Regulating H3K36 methylation and RNA Processing in Arabidopsis". ***Plant Physiol.*** (In Revision)

142. MD. Brooks, J Cirrone, AV. Pasquino, J Swift, JM Alvarez, S Mittal, CL Juang, K Varala, R A. Gutiérrez, G Krouk, D Shasha, and G M Coruzzi (2019) "Network Walking charts transcriptional dynamics of nitrogen signaling by integrating validated and predicted genome-wide interactions". ***Nature Comm.*** (2019) 10 (1): 1569.
Nat Commun. 2019 Apr 5;10(1):1569. doi: 10.1038/s41467-019-09522-1.

141. J. Swift, M. Adame, D. Tranchina, A. Henry, G. Coruzzi (2019) "Water impacts nutrient dose responses genome-wide to affect crop production." ***Nature Comm.*** 2019 Mar 26;10(1):1374. doi: 10.1038/s41467-019-09287-7.
PMID: 30914651

140. A Safi, A Medici, W Szponarski, A Marshall-Colon, S Ruffel, F Gaymard, GM Coruzzi, B Lacombe, G Krouk (2018). "HRS1/HHOs GARP transcription factors and reactive oxygen species are regulators of Arabidopsis nitrogen starvation response" ***bioRxiv*****, p. 164277**.

139. Varala K, Marshall-Colón A, Cirrone J, Brooks MD, Pasquino AV, Léran S, Mittal S, Rock TM, Edwards MB, Kim GJ, Ruffel S, McCombie WR, Shasha D, Coruzzi GM (2018). "Temporal transcriptional logic of dynamic regulatory networks underlying nitrogen signaling and use in plants". ***Proc. Natl. Acad. Sci. U S A***. June 19, 2018. Vol 115 (25) 6494-6499. Published ahead of print May 16, 2018. PMID: 29769331
See commentary: Greenham K & McClung R (2018) "Time to build on good design: Resolving the temporal dynamics of gene regulatory networks" . ***Proc. Natl Acad Sci USA*** vol 115, no 25 6325-6327.

138. Para, A, Li Y & Coruzzi G (2018) **"**µChIP-Seq for Genome-Wide Mapping of In Vivo TF-DNA Interactions in Arabidopsis Root Protoplasts". ***Methods Mol. Biol***. 2018;1761:249-261. doi: 10.1007/978-1-4939-7747-5_19.PMID:29525963

137. Walker L, Boddington C, Jenkins DJ, Wang Y, Grønlund JT, Hulsmans J, Kumar S, Patel D, Moore J, Carter A, Samavedam S, Bonomo G, Hersh DS, Coruzzi GM, Burroughs NJ, & Gifford ML. (2017) "Root architecture shaping by the environment is orchestrated by dynamic gene expression in space and time." ***Plant Cell***. Oct;29(10):2393-2412. tpc.00961.2016. doi: 10.1105/tpc.16.00961

136. Ristova D, Carré C, Pervent M, Medici A, Kim GJ, Scalia D, Ruffel S, Birnbaum KD, Lacombe B, Busch W, Coruzzi GM, Krouk G. (2016). Combinatorial interaction network of transcriptomic and phenotypic responses to nitrogen and hormones in the Arabidopsis thaliana root." ***Science Signaling*** 2016 Oct 25;9(451):rs13.

135. Swift J and Coruzzi G (2017). "A matter of time - How transient transcription factor interactions create dynamic gene regulatory networks." ***Biochim. Biophy.s Acta. Gene Regul. Mech***. Jan;1860(1):75-83

134. JA O'Brien, A Vega, E Bouguyon, G Krouk, A Gojon, G Coruzzi, R Gutierrez (2016)" Nitrate Transport, Sensing, and Responses in Plants" ***Molecular Plant*** 9 (6), 837-856.

133. Doidy J, Li Y, Neymotin B, Edwards M, Varala M, Gresham M and **Coruzzi GM** (2016) Hit-and-Run transcription: *de novo* transcription initiated by a transient bZIP1 "Hit" persists after the "Run". ***BMC Genomics***. vol 17:92. DOI:10.1186/s12864-016-2410-2

132. Ruffel S, Poitout A, Krouk G, **Coruzzi GM**, Lacombe B. (2016) Long-distance nitrate signaling displays cytokinin dependent and independent branches. ***J Integr Plant Biol***. 2015 Dec 1. doi: 10.1111/jipb.12453. [Epub ahead of print] PMID: 26619818

131. Lehnert M, Coruzzi G, Hegg E, Seefeldt L & Stein L (2015) "Feeding the world in the 21 Century: Grand Challenges in the Nitrogen Cycle. NSF Report (1550852) https://www.nsf.gov/mps/che/workshops/nsf_nitrogen_report_int.pdf

130. Varala K, Li Y, Marshall-Colón A, Para A and **Coruzzi GM** (2015) "Hit-and-Run" leaves its mark: Catalyst transcription factors and chromatin modification." ***BioEssays***. 2015 Aug;37(8):851-6. doi: 10.1002/bies.201400205. Epub 2015 Jun 23. **See Highlight**: In *BioEssays:* **"Hit-and-run": Transcription factors get caught in the act**
Link to Article: **http://onlinelibrary.wiley.com/doi/10.1002/bies.201400186/epdf**

129. Li Y, Varala K and **Coruzzi GM** (2015) "From milliseconds to lifetimes: Tracking the dynamic behavior of transcription factors in gene networks" ***Trends Genet.*** 2015 Sep;31(9):509-15. doi: 10.1016/j.tig.2015.05.005. Epub 2015 Jun 10.**See Highlight**: In *Atlas of Science (2016):* **From milliseconds to lifetimes: dynamic behavior of transcription factors in gene networks**; Link to Summary: **http://atlasofscience.org/from-milliseconds-to-lifetimes/**

128. Obertello M, Shrivastava S, Katari M & Coruzzi M (2015) "Cross-species network analysis uncovers conserved nitrogen-regulated network modules in rice." ***Plant Physiol***. 2015 Aug;168(4):1830-43. doi: 10.1104/pp.114.255877. Epub 2015 Jun 4. **See Highlight**: *In Atlas of Science* (2016) **Conserved nitrogen-regulated network modules in rice**
Link to Summary: **http://atlasofscience.org/conserved-nitrogen-regulated/**

127. Li Y, Mukherjee I, Thum KE, Tanurdzic M, Katari MS, Obertello M, Edwards MB, McCombie WR, Martienssen RA, **Coruzzi GM** (2015). The histone methyltransferase SDG8 mediates the epigenetic modification of light and carbon responsive genes in plants. ***Genome Biol***. 2015 Apr 19;16(1):79. [Epub ahead of print]

126. Medici A, Marshall-Colon A, Ronzier E, Szponarski W, Wang R, Gojon A, Crawford NM, **Coruzzi GM**, Krouk G. (2015) AtNIGT1/HRS1 integrates nitrate and phosphate signals at the Arabidopsis root tip. ***Nature Communications*** **6**, Article number: 6274 doi:10.1038/ncomms7274, Published 27 February 2015

125. Li Y, Krouk G, **Coruzzi GM** and Ruffel S (2014) "Finding a nitrogen niche: a systems integration of local and systemic nitrogen signalling in plants" ***J. Exp. Bot***. Oct;65(19):5601-10. doi: 10.1093/jxb/eru263. Epub 2014 Jun 24.

124. Delaux PM, Varala K, Edger PP, **Coruzzi GM**, Pires JC, Ané JM. (2014). "Comparative phylogenomics uncovers the impact of symbiotic associations on host genome evolution." ***PLoS Genet***. 2014 Jul 17;10(7):e1004487. doi: 10.1371/journal.pgen.1004487. eCollection 2014.

123. Para A, Li Y, Marshall-Colon A, Varala K, Francoeur NJ, Moran T, Edward MB, Hackley C, Bargmann B, Birnbaum K, McCombie M, Krouk G, and **Coruzzi M** (2014) "Hit-and-run" transcriptional control by bZIP1 mediates rapid nutrient signaling in Arabidopsis" ***Proc. Natl Acad Sci USA***, 2014, June 23, vol. 111(28); 10371–6. doi: 10.1073/pnas.1404657111 (**http://f1000.com/prime/718465473).**

122. Rosas U, Cibrian-Jaramillo A, Ristova D, Banta J, Gifford M, Fan HA, Zhou RW, Kim G, Krouk G, Birnbaum KD, Purugganan MD, **Coruzzi G** (2013). "Integration of responses within and across Arabidopsis natural accessions uncovers loci underlying root systems architecture". ***Proc. Natl. Acad. Sci. USA***. 2013 Sep 10;110 (37):15133-8**.**

121. Gifford ML, Banta J, Katari MS, Hulsmans Jo, Chen L, Ristova D, Tranchina D, **Coruzzi GM** and Birnbaum KD (2013) "Plasticity regulators modulate specific root traits in discrete nitrogen environments". ***PLoS Genet***. 2013 Sep;9(9):e1003760. doi: 10.1371/journal.pgen.1003760.

120. Léran S, Varala K, … **Coruzzi G,** Lacombe B (2013) "A unified nomenclature of NITRATE TRANSPORTER 1/PEPTIDE TRANSPORTER family members in plants". ***Trends in Plant Sci***. 2013 Sep 18. doi:pii: S1360-1385(13)00170-2.

119. Krouk G, Lingeman J, Marshall Colon A, **Coruzzi G** and Shasha S (2013). "Gene regulatory networks in plants: Learning causality from time and perturbation". ***Genome Biology*** 14 (6):123. (***Highly accessed.)***

118. Vidal EA, Moyano TC, Krouk G, Katari MS, Tanurdzic M, McCombie WR, **Coruzzi GM** and Rodrigo Gutiérrez RA (2013) "Integrated RNA-seq and sRNA-seq analysis identifies novel nitrate-responsive genes in Arabidopsis thaliana roots" ***BMC Genomics*** Oct 11;14:701. doi: 10.1186/1471-2164-14-701.

117. Ristova D, Rosas U, Krouk G, Ruffel S, Birnbaum K, & **Coruzzi G** (2013) "RootScape: A rapid, landmark-based system for capturing root system architecture". ***Plant Physiol***. 161(3):1086-96.

116. Bargmann B, Marshall-Colon A, Efroni I, Ruffel S, Birnbaum KD, **Coruzzi G** and Krouk G (2013) "TARGET: A Transient Transformation System for Genome-wide Transcription Factor Target Discovery". ***Mol Plant***. 2013 May;6(3):978-80. doi: 10.1093/mp/sst010. Epub 2013 Jan 18.

115. Lee E, Katari M, Kolokotronis S, Cibrian A, Stamatakis A, Ott M, Little D, Stevenson D, McCombie WR, Chiu J, Martienssen R, Brenner E, **Coruzzi G**, DeSalle R (2011) "High resolution phylogeny of the seed plants: A functional phylogenomic view." ***PLoS Genetics*** Dec;7(12):e1002411. Epub 2011 Dec 15. .* (***This PhyloGenius reference has "gone viral" with 29,172 views/downloads since Dec 15, 2011***)

114. Ruffel S, Krouk G, Shasha D, Birnbaum KD, and **Coruzzi GM** (2011) "Nitrogen-economics of root foraging: Transitive closure of the nitrate-cytokinin relay and new systemic signals for N-supply vs. demand." ***Proc. Natl. Acad. Sci. USA.*** 108(45):18524-9.

113. Widiez T, El-Kafafi ES, Girin T, Berr A, Ruffel S, Krouk G, Vayssières A, Shen WH, **Coruzzi G**, Gojon A, and Lepetit M (2011) "High nitrogen insensitive 9 (HNI9)-mediated systemic repression of root NO3- uptake is associated with changes in histone methylation." (2011). ***Proc. Natl. Acad. Sci. USA***., 108; 13329-34.

112. Krouk G, Ruffel S, Gutiérrez RA, Gojon A, Crawford NM, **Coruzzi GM** and Lacombe B. (2011) "A framework integrating plant growth with hormones and nutrients." ***Trends in Plant Science***, 16 (4) 178-182.

111. Krouk G, Mirowski P, LeCun Y, Shasha D and **Coruzzi G**. (2010) "Predictive network modeling of the high-resolution dynamic plant transcriptome in response to nitrate." ***Genome Biology,*** 11 (12), R123.

110. Obertello M, Krouk G, Katari MS, Runko SJ, **Coruzzi GM** (2010). "Modeling the global effect of the basic-leucine zipper transcription factor 1 (bZIP1) on nitrogen and light regulation in Arabidopsis."***BMC Syst. Biol***., 4:111.

109. Cibrián-Jaramillo A, de la Torre JE, Lee E, Katari M, Stevenson WD, Martienssen R, Brenner E, **Coruzzi G**, DeSalle R (2010) "Using Phylogenomic Patterns and Gene Ontology to Identify Proteins of Importance in Plant Evolution." ***Genome Biol. & Evol.,*** 2:225-39.

108. Krouk G, Crawford NM, **Coruzzi GM**, Tsay YF (2010) "Nitrate signaling: adaptation to fluctuating environments." ***Curr. Opinion in Plant Biol***., (3): 266-73.

107. Vidal EA, Araus V, Lu C, Parry G, Green PJ, **Coruzzi GM**, Gutiérrez RA (2010). "Nitrate-responsive miR393/AFB3 regulatory module controls root system architecture in Arabidopsis thaliana.
Proc. Natl. Acad. Sci. USA, 107(9): 4477-82.

106. Nero D, Kelfer J, Katari MS, Tranchina D, **Coruzzi GM** (2009) In silico evaluation of predicted regulatory interactions in Arabidopsis thaliana. ***BMC Bioinformatics***, 10(1): 435.

105. Katari MS, Nowicki SD, Aceituno FF, Nero D, Kelfer J, Thompson LP, Cabello JM, Davidson RS, Goldberg AP, Shasha DE, Coruzzi GM, Gutierrez RA (2010) "VirtualPlant: A software platform to support Systems Biology research." ***Plant Physiol***. 152(2): 500-15.

104. Ruffel S, Krouk G, **Coruzzi GM** (2010). "A Systems View of Responses to Nutritional Cues in Arabidopsis: Towards a Paradigm Shift for Predictive Network Modeling." ***Plant Physiol***. 152(2): 445-52.

103. Nero D, Krouk G, Tranchina D, **Coruzzi GM** (2009) "A system biology approach highlights a hormonal enhancer effect on regulation of genes in a nitrate responsive "biomodule". ***BMC Syst Biol***., 3:59. ***(Highly Accessed)***

102. Brenner ED, Feinberg P, Runko S, **Coruzzi GM** (2009). "A mutation in the Proteosomal Regulatory Particle AAA-ATPase-3 in Arabidopsis impairs the light-specific hypocotyl elongation response elicited by a glutamate receptor agonist, BMAA." ***Plant Mol Biol***. (5):523-33.

101. de la Torre JE, Lee E, Kolokotronis SO, Katari M, Stevenson WD, McCombie R, Martienssen R, Brenner E, **Coruzzi G**, DeSalle R (2009) "The Impact of Outgroup Choice and Missing Data on Major Seed Plant Phylogenetics Using Genome-Wide EST Data." ***PLoS ONE 4***(6): e5764.

100. Krouk, G., Tranchina, D., Lejay, L., Cruikshank, A., Shasha, D., **Coruzzi, G**., and Gutierrez, R. (2009). 'A systems approach uncovers restrictions for signal interactions regulating genome-wide responses to nutritional cues in Arabidopsis'. ***PloS Comp. Biol.*** Mar 5(3):e1000326. (Highly Accessed).

99. Egan M, Lee E, Chiu J, **Coruzzi G** & DeSalle (2009) "Gene orthology assessment with OrthologID" In: ***Bioinformatics for DNA Sequence Analysis***, vol 537; Ed, David Posada, Humana Press, Springer.

98. Gutierrez, R.A.; **Coruzzi, G.M**., Eds (2009) ***Plant Systems Biology***, Annual Plant Reviews; Blackwell Publishing: Oxford, UK, 2009, Vol. 35. 360 pages.

97. Coruzzi GM, Burga A, Katari MS, and Gutierrez RA (2009) Systems Biology: Principles and Applications in Plant Research. In *Plant Systems Biology*, ***Annual Plant Reviews***; Blackwell Publishing: Oxford, UK, 2009, Vol. 35. Pgs 3-31. Book Chapter.

96. Bender J, Benfey P, Bergmann D, Borevitz J, **Coruzzi G**, Dangl J, Dean C, Ecker J, Estelle M, Glazebrook J, Grant S, Guerinot ML, Gutierrez R, Long J, Nordborg M, Poethig S, Raikhel N, Schmitt J, Schnittger A, Vidal M. (2008) "2020 vision for biology: the role of plants in addressing grand challenges in biology." ***Mol Plant***. (4):561-3.

95. Indra NS,*, Egan MG, **Coruzzi G**, Lee E, DeSalle R (2008) "Automated Simultaneous Analysis Phylogenetics (ASAP): An Enabling Tool for Phlyogenomics" Bioinformatics. ***BMC Bioinformatics***. 19 : 103.

94. Thum KE, Shin MJ, Gutierrez R, Katari M, Nero D, Shasha D, **Coruzzi GM** (2008) "An integrated genetic, genomic and systems approach defines gene networks regulated by the interaction of light and carbon signaling pathways". ***BMC Systems Biology*** 4; 2 (1) : 31. HIGHLY ACCESSED.

93. Gutiérrez R, Stokes T, Thum K, Xu X, Obertello X, Katari M, Tanurdzic M, Dean A, Nero DC, McClung CR and **Coruzzi GM** (2008) "Systems approach identifies an organic nitrogen-responsive gene network that is regulated by the master clock control gene *CCA1"*. ***Proc. Natl Acad Sci USA*** vol 105, 4939-4944. **Faculty of 1000 (recommended: Factor 3)**

94. Gifford M, Dean A, Gutierrez R, **Coruzzi G**, & Birnbaum K (2008) "Cell-Specific Nitrogen Responses Mediate Developmental Plasticity" ***Proc. Natl. Acad. Sci. USA*** 105, 803-808. **Faculty of 1000 (Must read: Factor 6)**

92. Gutierrez R, Gifford ML, Poultney C, Wang RC, Shasha DE, **Coruzzi GM**, Crawford NM (2007) "Insights into the genomic nitrate response using genetics and the Sungear Software System" ***Journal of Experimental Botany*** doi: 10.1093/jxb/erm079

91. Gutiérrez RA, Lejay L, Chiaromonte F, Shasha DE, **Coruzzi GM** (2007) "Qualitative network models and genome-wide expression data define carbon/nitrogen-responsive biomodules in Arabidopsis" ***Genome Biology***, 8: R7. **Faculty 1000** (Must Read: Factor 6)

90. Poultney C, Gutiérrez RA, Katari MS, Gifford ML, Paley WB, **Coruzzi GM** and Shasha DE (2007) "Sungear: Interactive visualization, exploration and functional analysis of genomic datasets". ***Bioinformatics***, *23:259-61*.

89. Gifford ML, Gutiérrez RA, and **Coruzzi GM** (2006) "Modeling the Virtual Plant: A Systems Approach to Nitrogen-Regulatory Gene Networks" Essay 12.2 Chapter 12. Assimilation of mineral nutrients; In: A companion to Plant Physiology, Fourth Edition, Lincoln Taiz and Eduardo Zeiger, http://4e.plantphys.net/article.php?ch=12&id=352

88. de la Torre1 JEB, Egan MG, Katari M, Brenner E, Stevenson DS, **Coruzzi GM**, DeSalle R (2006) "ESTimating plant phylogeny: lessons from partitioning" ***BMC Evolutionary Biology*** 6:48.

87. Chiu J, Lee E, Egan M, Sarkar IN, **Coruzzi GM**, and DeSalle R (2006) "OrthologID: Automation of Genome-scale Ortholog Identification within a Parsimony Framework" ***Bioinformatics*** Vol 22, pp. 699-707.

86. Brenner E, Katari M, Rudd S, Stevenson S, Douglas A, Moss W, Twigg RW, Runko S, Stellari G, McCombie RW, **Coruzzi G** (2005) EST analysis in Ginkgo biloba: An assessment of conserved developmental regulators and gymnosperm-specific genes. ***BioMed Central Genomics***. Vol 6: 143. **Most highly Accessed paper**.

85. Gutierrez R, Shasha S and **Coruzzi G**. (2005) "Systems Biology for the Virtual Plant". ***Plant Physiol***. Vol 138, pp 550-554.

84. Wang R, Tischner R, Gutierrez RA, Hoffman M, Xing X, Chen M, **Coruzzi G**, Crawford NM. Genomic analysis of the nitrate response using a nitrate reductase-null mutant of Arabidopsis. ***Plant Physiol***. 2004 Sep; 136 (1) : 2512-22. Epub 2004 Aug 27.

83. Wong HK, Chan HK, **Coruzzi GM**, Lam HM (2004) Correlation of *ASN2* gene expression with ammonium metabolism in Arabidopsis. ***Plant Physiology*** 134: 332-338.

82. Palenchar PM, Kouranov A, Lejay LV, **Coruzzi GM**. Genome-wide patterns of carbon and nitrogen regulation of gene expression validate the combined carbon and nitrogen (CN)-signaling hypothesis in plants. ***Genome Biol***. 2004; 5(11):R91. Epub 2004 Oct 29.

81. Lejay L, Shasha D, Kouranov A, Palenchar P, Cruickshank A, Chou M and **Coruzzi. G** (2004) Adaptive combinatorial design to explore large experimental spaces: Approach and Validation. ***Systems Biology*; Vol** 1 (2) 1-7**. Faculty 1000 (Must read: Factor 6)**

80. Thum KE, Shin MJ, Palenchar PM, Kouranov A, **Coruzzi GM**. (2004). "Genome-wide investigation of light and carbon signaling interactions in Arabidopsis". ***Genome Biol***. 2004: 5(2):R10. Chosen by Faculty of 1000.

79. Brenner E, Stevenson D, McCombie R, Katari M, Rudd S, Mayer K, Palenchar P, Runko S, Twigg R, Dai G, Martienssen R, Benfey P, and **Coruzzi G**. (2003). "Expressed sequence tag analysis in Cycas, the most primitive living seed plant", ***Genome Biol*.** 4(12):R78. Paper cited by BioMEdCentral as most highly "visited" paper in Dec 2003 (1300 downloads).

78. Raikhel N and **Coruzzi G** (2003). Achieving the in silico plant. Systems Biology and the future of plant biological research. ***Plant Physiology*** 132; 404-409.

77. Thum KE, Shasha DE, Lejay LV, **Coruzzi GM**. (2003) Light- and carbon-signaling pathways. Modeling circuits of interactions. ***Plant Physiol***. Jun;132(2):440-52

76. **Coruzzi, GM** (September 30, 2003) Primary N-assimilation into Amino Acids in Arabidopsis. In CR Somerville, EM Meyerowitz, eds, The Arabidopsis Book. American Society of Plant Biologists, Rockville, MD, doi: 10.1199/tab.0010, www.aspb.org/publications/arabidopsis/

75. HM Lam, P Wong, HK Chan, KM Yam, L Chen, CM Chow & **GM. Coruzzi** (2003) Overexpression of the ASN1 gene enhances nitrogen status in seeds of Arabidopsis thaliana. ***Plant Physiology***, 132; 926-935**. Faculty 1000** (Recommended: Factor 3)

74. Chiu J, Brenner E, DeSalle R, Barboza N and **Coruzzi G** (2003) Analysis of Glutamate receptor genes in Plants: Progress and Prospects. In: "Glutamate Receptors in Peripheral Tissue: Excitatory Transmission outside the CNS. Eds. Gill S and Pulido O. Kluwer Academica/Plenum. New York.

73. Miesak B & **Coruzzi G** (2002) Molecular and Physiological Analysis of Arabidopsis mutants defective in cytosolic or chloroplastic aspartate aminotransferase. ***Plant Physiology*** 129: 650-660. Faculty 1000 (Recommended factor 3)

72. Oliveira I, Brears T, Knight T, Clark, A & **Coruzzi G** (2002) Overexpression of cytosolic glutamine synthetase. Relation to Nitrogen, Light and photorespiration. ***Plant Physiology*** 129: 1170-1180.

71. Chiu J, Brenner E, DeSalle R, Nitabach M, Holmes T, & **Coruzzi G** (2002) Phylogenetic and expression analysis of the glutamate receptor like gene family in Arabidopsis thaliana. ***Molecular Biology & Evolution*** 19: 1066-1082.

70. Lancien M, Martin M, Hsieh MH, Leustek T, Goodman H & **Coruzzi G**. (2001) Arabidopsis glt1-T mutant defines a role for NADH GOGAT in the non-photorespiratory ammonium assimilatory pathway. ***The Plant Cell*** 29: 347-358.

69. Shasha D, Kouranov A, Lejay L, Chou C. & **Coruzzi G** (2001) Using Combinatorial Design to Study Regulation by Mulitple input signals: A tool for parsimony in the post-genomic era. ***Plant Physiology*** 127: 1590-1594. **Faculty 1000 (Must read; Factor 6)**

68. Lancombe B, Becker D, Hedrich R, DeSalle R, Hollman M. Kwak J, Schroeder J, Le Novere N, Nam HG, Spalding E, Tester M, Turano F, Chiu J, and **Coruzzi G** (2001) The identity of plant glutamate receptors**.** ***Science*** 292: 1486-1487.

67. Oliveira I, Brenner E, Chiu J, Hsieh MH, Kouranov A, Lam HM, Shin M and **Coruzzi G** (2001). Metabolite and light regulation of metabolism: Lessons from the study of a single pathway. ***Brazilian Journal of Medical and Biological Research*** 34: 567-575.

66. **Coruzzi G** and Zhou L (2001) Carbon and nitrogen sensing/signaling in plants: Emerging Matrix Effects. ***Curr. Opinion in Plant Biology*** 4: 247-253.

65. **Coruzzi G** and Bush D (2001) Nitrogen and Carbon Nutrient and Metabolite Signaling in Plants. ***Plant Physiology*** 125: 61-64.

64. **Coruzzi G** and Last R (2000); "Amino acids" In: Biochemistry and Molecular Biology of Plants: **American Society of Plant Physiologists Textbook**; Buchanan B, Gruissem W. and Jones. Chapter 8, pp. 358-410.

63. **Coruzzi G** and Browse J (2000) Physiology and Metabolism: Two old grannies catch fire in the new millenium. ***Current Opinion in Plant Biology*** 3: 179-181.

62. Brenner E, Martinez-Barbosa N, Clark A, Liang Q, Stevenson DW, and **Coruzzi G** (2000) Arabidopsis mutants resistant to BMAA, a Cycad-derived glutamate receptor agonist. ***Plant Physiology*** 124: 1615-1624.

61. Oliveira I and **Coruzzi G** (1999) Carbon and amino acids reciprocally modulate the expression of glutamine synthetase in Arabidopsis. ***Plant Physiology*** 121: 301-309.

60. Chiu J, DeSalle R, Lam HM, Meisel L and **Coruzzi G** (1999) Molecular Evolution of glutamate receptors: A primitive signaling mechanism that existed before plants and animals diverged. ***Molecular Biology and Evolution*** 16: 826-838.

59. Lam HM, Chiu J, Hsieh MH, Meisel L, Oliveira I, Shin M and **Coruzzi G** (1998) Glutamate receptor genes in plants. ***Nature*** 396: 125-126.

58. Hsieh MH, Lam HM, van de Loo F and **Coruzzi G**. (1998). A PII like protein in Arabidopsis: Putative role in nitrogen sensing. ***Proc. Nat'l Acad. Sci. USA*** 95: 13965-13970.

57. Lam HM, Hsieh MH, and **Coruzzi G.M**. (1998) Reciprocally regulated genes for distinct isoenzymes of asparagine synthetase in Arabidopsis thaliana. ***Plant Journal*** 16: 345-353.

56. Schultz C, Hsu M, Meisak B & **Coruzzi G**. (1998) Arabidopsis mutants define a role for isoenzymes of aspartate aminotransferase in plant nitrogen assimilation. ***Genetics*** 149: 491-499.

55. Coschigano K, Melo-Oliveira R, and **Coruzzi G**. (1998) Arabidopsis mutants and genes for distinct ferredoxin-dependent glutamate synthase isoforms: Implications for photorespiration and primary nitrogen assimilation. ***Plant Cell*** 10: 741-752.

54. Ngai, N and **Coruzzi, G**. (1998) Dissecting light repression of the asparagine synthetase gene in Arabdiopsis. In NATO ASI, "**Cellular Integration of Signaling Pathways in Plant Development**". Eds. LoSchiavo, Raikhel, R. Last and G. Morelli. Springer Verlag. pp. 147-157.

53. Ngai N, Tsai F.Y. and **Coruzzi G.M.** (1997) Light-induced transcriptional repression of the AS1 gene: Identification of cis- elements and transfactors. ***Plant Journal*** 12: 1021-1034.

52. Oliveira I, Lam H, Coschigano K, Melo-Oliveira R, and **Coruzzi G**. (1997) Molecular-genetic dissection of N assimilation in Arabidopsis thaliana. ***Plant Physiol. and Biochem.*** 35: 185-198.

51. Melo-Oliveira R, Oliveira I, and **Coruzzi G**. (1996) Arabidopsis mutant analysis and gene regulation define a nonredundant role for glutamate dehydrogenase in nitrogen assimilation. ***Proc. Nat'l Acad. Sci.*** 93: 4718-4723.

50. Lam HM, Coschigano K, Oliveira I, Melo-Oliveira R, and **Coruzzi G**. (1996) The molecular-genetics of nitrogen assimilation into amino acids in higher plants. ***Annu. Rev. Plant Physiol. Plant Mol. Biol***. 47: 569-593.

49. Tjaden, G and **Coruzzi, G**. (1995) Cis-elements and trans-factors affecting the expression of a non-photosynthetic light-regulated genes for chloroplast glutamine synthetase. ***Plant Physiology*** 108: 1109-1117.

48. Walker E.L., Weeden, N., Taylor, C, Green, P. and **Coruzzi, G.** (1995) Molecular evolution of duplicate copies of genes encoding cytosolic glutamine synthetase in *Pisum sativum*. ***Plant Molecular Biology*** 29: 1111-1125.

47. Lam HM, Coschigano K., Schultz C., Melo-Oliveira R., Tjaden G., Oliveria I., Ngai N, Hsieh M, **Coruzzi G** (1995) Use of Arabidopsis mutants and genes to study amide amino acid biosynthesis. ***Plant Cell*** 7: 887-898.

46. Schultz, C and **Coruzzi G** (1995) The aspartate aminotransferase gene family in Arabidopsis encodes isoenzymes localized to three subcellular compartments. ***The Plant Journal*** 7: 61-75.

45. Lam HM, Peng S, and **Coruzzi G**. (1994) Metabolic regulation of the gene encoding glutamine-dependent asparagine synthetase in Arabidopsis thaliana. ***Plant Physiology*** 106: 1347-1357.

44. Tjaden, G. and **Coruzzi, G**. (1994) A novel AT-rich DNA binding protein that combines an HMGI-like DNA-binding domain with a putative transcription domain. ***The Plant Cell*** 6: 107-118.

43. **Coruzzi, G**., Coschigano, K., Lam, H.M., Oliveira, R., Peng, S., & Schultz, C. (1994) "Molecular genetics of nitrogen assimilation into amino acids in Arabidopsis thaliana". In: **VIIth NATO/ASI on Plant Molecular Biology**; Molecular-genetic analysis of plant development and metabolism, Eds. P. Puigdomenech, G. Coruzzi. Springer-Verlag, pp. 141-150.

42. Brears, T., Liu, C., Knight, T., & **Coruzzi, G.** (1993) "Ectopic overexpression of asparagine synthetase in transgenic tobacco." ***Plant Physiology*** 103: 1285-1290.

41. Tjaden, G. and **Coruzzi, G**. (1993) "Glutamine and Asparagine biosynthesis: Regulation of genes for enzymes along a common nitrogen-metabolic pathway." In: **Control of Plant Gene Expression**. Ed. D.P. Verma. CRC Press, London. pp. 459-470.

40. **Coruzzi, G.** (1992) "A molecular approach to the analysis of the regulation of glutamine and asparagine biosynthesis in plants." In: **Biosynthesis and molecular regulation of amino acids in plants**. Eds. B. Singh, H. Flores, J. Shannon, ASPP Series. Vol 7. pp. 52-58.

39. **Coruzzi, G**., Edwards, J., Walker, E., Tsai, F., Brears, T. (1992) "Regulation of genes along a common nitrogen metabolic pathway." In: **NATO/ASI Plant Molecular Biology 2**. Eds. B.A. Larkins and R. Herrmann. Plenum Press; pp. 139-146.

38. Tsai, F.-Y. and **Coruzzi, G.M**. (1991) "Transgenic plants for studying genes encoding amino acid biosynthetic enzymes." In: **Transgenic Plants**, Eds. S.D. Kung and R. Wu., Academic Press, NY (p. 181 - 194).

37. Brears,T., Walker, E.L., **Coruzzi, G.M.** (1991) A promoter sequence involved in the cell-specific expression of the pea glutamine synthetase GS3A gene in organs of transgenic tobacco and alfalfa. ***The Plant Journal*** 1: 235-244.

36. McGrath,R.B. and **Coruzzi, G.M.** (1991) Mini-review: A gene network controlling glutamine and asparagine biosynthesis in plants. ***The Plant Journal*** 1: 275-280.

35. Brears, T. and **Coruzzi G.M.** (1991) "The molecular biology of amino acid biosynthesis in plants." In: **Genetic Engineering, Principles and Methods**. Ed. J. Setlow, Vol. 13, 221-236.

34. Tsai, F.-Y. and **Coruzzi, G.M**. (1991) Light represses the transcription of plant asparagine synthetase genes in photosynthetic and non-photosynthetic organs of plants. ***Mol. Cell. Biol.*** 11: 4966-4972.

33. **Coruzzi, G.M**. (1991) "Molecular approaches to the study of amino biosynthesis in higher plants". ***Plant Science*** 74: 145-155.

32. Edwards J.W. and **Coruzzi G.M**. (1990) Cell-specific gene expression in plants. ***Ann. Rev. Genet***. Vol. 24, Chpt. 12, p. 275-303.

31. Edwards, J.W., Walker, E.L., and **Coruzzi, G.M.** (1990) Cell-specific expression in transgenic plants reveals non-overlapping roles for chloroplast and cytosolic glutamine synthetase. ***Proc. Nat'l Acad. Sci.*** 87: 3459-3463.

30. Tsai F.Y. and **Coruzzi G.M.** (1990) Dark-induced and organ-specific expression of two asparagine synthetase genes in *Pisum sativum*. ***EMBO J.*** 9: 323-332.

29. Walker E.L. and **Coruzzi G.M**. (1989) Developmentally regulated expression of the gene family for cytosolic glutamine synthetase in *Pisum sativum* ***Plant Physiology*** 91: 702 - 708.

28. Edwards J.W. and **Coruzzi G.M.** (1989) Photorespiration and light act in concert to regulate the expression of the nuclear gene for chloroplast glutamine synthetase. ***The Plant Cell*** 1: 241-248.

27. **Coruzzi, G.M**., Edwards, J.W., Tingey, S.T., Tsai, F.Y., and Walker, E.L. (1988) Glutamine synthetase: Molecular evolution of an eclectic multi-gene family. In: The Molecular Basis of Plant Development. **UCLA Symposia on**

Molecular and Cellular Biology. New Series Vol. 92, Ed. R. Goldberg, Alan R. Liss Inc., N.Y. pp. 223-232.

26. Tingey, S.V., Tsai F.Y., Edwards J.W., Walker E.L. and **Coruzzi G.M**. (1988) Chloroplast and cytosolic glutamine synthetase are encoded by homologous nuclear genes which are differentially expressed *in vivo*. ***J. Biol. Chem.*** 263: 9651-9657.

25. **Coruzzi, G.M.,** Tingey, S.V., Walker E.L., Edwards J.W., and Tsai F.Y. (1987) Molecular analysis of glutamine synthetase genes in higher plants. In: Plant Gene Systems and their Biology. **UCLA Symposia on Molecular and Cellular Biology**, Vol 62. Eds. L. McIntosh and J. Key. Alan R. Liss Inc., New York. pp. 217-226.

24. Tingey, S.V., and **Coruzzi, G.** (1987) Glutamine synthetase of *Nicotiana plumbaginifolia*: cloning and *in vivo* expression. ***Plant Physiology*** 84: 366-373.

23. Tingey, S.V., Walker, E., and **Coruzzi G.M**. (1987) Glutamine synthetase genes of pea encode distinct polypeptides are differentially expressed in leaves, roots and nodules. ***EMBO J.*** 6: 1-9.

22. Fluhr, R., Moses, P., Morelli, G., **Coruzzi, G.,** and Chua, N.H. (1986) Expression dynamics of the pea rbcS multigene family and organ distribution of the transcripts. ***EMBO J.*** 5: 2063-2071.

21. Broglie, R. and **Coruzzi, G.M** (1985) Expression of a pea gene encoding the small subunit of ribulose-1,5-bisphosphate carboxylase in vivo and in transformed plant cells. **In: Recent Advances in Photosynthesis Research**. D. Longstreth Ed., pp.31-35.

20. **Coruzzi, G**., Broglie, R., Edwards, C., and Chua, N.H. (1984) Tissue-specific and light-dependent expression of a nuclear gene encoding the small subunit of ribulose-1,5-bisphosphate carboxylase. ***EMBO J.*** 3: 1671-1679.

19. Broglie, R., **Coruzzi, G**., Fraley, R.T., Rogers, S.G., Horsch, R.B., Niedermeyer, J.G., Fink, C.L., Flick, J.S., and Chua, N.H. (1984) Light-regulated expression of a pea ribulose-1,5 bisphosphate carboxylase small subunit gene in transformed plant cells. ***Science*** 224: 838-843.

18. Broglie, R., **Coruzzi, G**., Lamppa, G., Keith, B., and Chua, N.H. (1984) Monocot and dicot genes encoding the small subunit of ribulose 1,5 bisphosphate carboxylase: structural analysis and gene expression. **Stadler Symp.** 15: 59-71.

17. Broglie, R., **Coruzzi, G**., and Chua, N.H. (1984) Differential expression of genes encoding polypeptides involved in C4 photosynthesis. **In: Chloroplast Biogenesis**, (Ellis, R.J., ed.), Cambridge University Press, pp. 51-64.

16. Broglie, R., **Coruzzi, G**., Keith, B., and Chua, N.H. (1984) Molecular biology of C_4 photosynthesis in Zea mays: Differential localization of proteins and mRNAs in the two leaf cell types. ***Plant Molecular Biology*** 3: 431-444.

15. **Coruzzi, G**., Broglie, R., Lamppa, G., Chua, N.H. (1983) Expression of nuclear genes encoding the small subunit of ribulose-1,5-bisphosphate carboxylase. **In: Structure and function of Plant Genomes** O.C. Ciferri, and L. Dure, III, eds) Plenum Press. pp. 47-59.

14. Broglie, R., **Coruzzi, G**., Lamppa, G., Keith, B., and Chua, N.H. (1983) Structural analysis of nuclear genes coding for the precursor to the small subunit of wheat ribulose-1,5-bisphosphate carboxylase. ***Nature Biotechnology*** 1: 55-61.

13. **Coruzzi, G**., Broglie, R., Cashmore, A., and Chua, N.H. (1983) Nucleotide sequences of two pea cDNA clones encoding the small subunit of Ribulose 1,5 bisphosphate carboxylase and the major chlorophyll a/b binding thylakoid polypeptide. ***J. Biol. Chem.*** 258: 1399-1402

12. **Coruzzi, G**., Bonitz, S.B., Thalenfeld, B.E., and Tzagoloff, A. (1981) Assembly of the mitochondrial membrane system. Analysis of the nucleotide sequence and transcripts in the oxi 1 region of yeast mitochondrial DNA. ***J. Biol. Chem.*** 256: 12780-12787.

11. **Coruzzi, G**., Bonitz, S.B., and Thalenfeld, B.E. (1980) Organization and structure of genes in yeast mitochondrial DNA. **In: VIth Intl Fermentation Symp.** Permagon Press, N.Y. pp. 157-164.

10. **Coruzzi, G**. and Tzagoloff, A. (1980) Assembly of the mitochondrial membrane system: nuclear suppression of a cytochrome b mutation in yeast mitochondrial DNA. ***Genetics*** 95: 891-903.

9. Tzagoloff, A., Bonitz, S.B., **Coruzzi, G.,** Thalenfeld, B.E., and Macino, G. (1980) Yeast mitochondrial cytochrome oxidase genes. **In: The Organization and Expression of the Mitochondrial Genome.** (C. Saccone and A.M. Kroon, eds.) North Holland Press.

8. Bonitz, S.G., **Coruzzi, G**., Thalenfeld, B.E., Tzagoloff, A., and Macino, G. (1980) Assembly of the mitochondrial

membrane system: structure and nucleotide sequence of the gene coding for subunit 1 of yeast cytochrome oxidase. ***J. Biol. Chem***. 255: 11927-11941.

7. Bonitz, S.G., **Coruzzi, G**., Thalenfeld, B.E., Tzagoloff, A., and Macino, G. (1980) Assembly of the mitochondrial membrane system: physical map of the oxi 3 locus of yeast mitochondrial DNA. ***J. Biol. Chem***_255: 11922-11926.

6. Bonitz, S.G., Berlani, R.E., **Coruzzi, G**., Li, M., Nobrega, F.G., Nobrega, M., Thalenfeld, B.E., Tzagoloff, A., and Macino, G. (1980) Codon recognition rules in yeast mitochondria. ***Proc. Natl. Acad. Sci. USA*** 77: 3167-3170.

5. Berlani, R.E., Bonitz, S.B., **Coruzzi, G**., Nobrega, M., and Tzagoloff, A. (1980) Transfer RNA genes in the cap-oxi 1 region of yeast mitochondrial DNA. ***Nuc. Acids Res***. 8: 5017-5030.

4. **Coruzzi, G**., and Tzagoloff, A. (1980) Assembly of the mitochondrial membrane system: DNA sequence of subunit 2 of yeast cytochrome oxidase. ***J. Biol. Chem***. 254: 9324-9330.

3. Macino, G., **Coruzzi, G**., Nobrega, F., Li, M., and Tzagoloff, A. (1980) The use of the UGA terminator as a tryptophan codon in yeast mitochondria. ***Proc. Natl. Acad. Sci***. USA 76: 3784-3785.

2. **Coruzzi, G**., Trembath, M.K., and Tzagoloff, A. (1979) Isolation of mitochondrial and nuclear mutants of *Saccharomyces cerevisiae* with specific defects in mitochondrial functions. **Methods in Enzymology**. Vol. LVV: 95-106.

1. **Coruzzi, G**., Trembath, M.K., and Tzagoloff, A. (1978) Assembly of the Mitochondrial membrane system: mutations in the pho2 locus of the mitochondrial genome of *Saccharomyces cerevisiae*. ***Eur. J. Biochem***. 92: 279-28