

Curriculum Vitae

Rosa J. Buxeda

Work Address:

University of Puerto Rico
Biology Department PO BOX 9012
Mayaguez, PR 00681-9012
(787) 832-4040, Ext.2174
Fax: (787) 265-3837
r_buxeda@rumac.upr.clu.edu

Education:

Ph.D., Microbiology, 1993. Rutgers University, New Brunswick, NJ.
M.S., Bacteriology, 1986. University of Wisconsin, WI.
B.S., Industrial Microbiology, 1985. University of Puerto Rico, Mayaguez, PR.

Research Experience:

1994- 2000. Associate Professor, University of Puerto Rico, Mayaguez, PR.
Quantified intracellular level of inositol and its effect on phospholipid composition at the membrane of *Saccharomyces cerevisiae* during different stages of growth.
Analysis of Microbial Diversity in Aquatic Environments and its correlation to physical and chemical factors..
1984-1986. Summer Intern, Lawrence Livermore National Laboratory, Livermore, CA.

Administrative Experience:

- Board of Directors, 10/97- 10/99, International Society for Exploring Teaching Alternatives.
- Liaison Officer, 8/95 - 1/98, University of Puerto Rico and PR Alliance for Minority Participation. Mayaguez, PR
- Associate Director, 6/96- 6/97, Center for Professional Enhancement, University of Puerto Rico, Mayaguez, PR
- Board of Directors, 6/96-6/97, 1997 Undergraduate Education Conference for American Society of Microbiology, Washington
- Teaching Effectiveness Trainee, 1/96-present, University of Puerto Rico, Mayaguez, PR.
- Associate Director, 4/96-6/96, Department of Biology, University of Puerto Rico, Mayaguez, PR

Teaching Experience:

- Associate Professor, 7/96-present, Department of Biology, University of Puerto Rico, Mayaguez.
- Assistant Professor, 7/93-6/96, Department of Biology, University of Puerto Rico, Mayaguez.

- • Instructor, 1/87-6/93, Department of Biology, University of Puerto Rico, Mayaguez.

Teaching Activities:

- • July 1999, 2000. Partnership for Spatial and Computational Research Summer Station Coordinator.
- • 1999- Present. PRAMP Virtual Institute Resource Professor.
- • 1996 -Present. Developing of Students Portfolio for Learning Assessment. University of Puerto Rico, Mayaguez Campus.
- • 1993-Present. Implementation of Cooperative Learning in Microbiology. University of Puerto Rico, Mayaguez Campus.
- • 1994-1999. Implementation of Peer Mentoring in Biology. University of Puerto Rico, Mayagüez Campus.

Teaching Award:

- • AAHE Forum on Exemplary Teaching Participant, 1997
- • University of Puerto Rico, Mayaguez Campus Productivity Award 1995-96
- • Who's Who Among America's Teachers, 1996 and 2000
- • Gordon Research Conference of Undergraduate Microbiology Education Participant. 1999

Professional Affiliations:

- • American Association for Higher Education
- • National Science Teachers Association
- • American Society of Microbiology
- • International Society to Explore Teaching Alternatives- Member, Board of Director (Present)

Publications:

- • Buxeda, R.J. and D. Moore. 2000. Transforming a Sequence of Microbiology Courses using the Student Profile. Journal of Microbiology Education. American Society for Microbiology Vol I No. 1 pags. 1-6
- • Buxeda, R.J. and D. Moore. 2000. Using Learning Styles Data to Design a Microbiology Course. J. College Science Teaching Vol XXIX No 3 Pag. 159-164
- • Buxeda, R.J., L. Morell, J. Velez and R. Vásquez. 2000. Summer Station: Initiating the Undergraduate Research Experience in RS/GIS. IGARSS 2000 Proceedings, Honolulu, Hawaii
- • Morell L., R.J Buxeda, J. Velez and R. Vásquez. 2000. Learning by Doing: Integrating Undergraduate Research and Remote Sensing & GIS Curriculum. IGARSS Proceedings.
- • Morell L., R. Vasquez, R. Buxeda and J. Velez. 2000 A Faculty Development Strategy for Effectively Integrating Undergraduate Research and Mentoring into the SMET Curriculum. Information Technology Based Higher Education and Training Proceedings

- • Buxeda, R.J., Ocasio, N., Orengo M., Padilla I. and Rivera, Z. 1997. Manual para la Tarea Docente en el Salón de Clases. PRAMP.
- • Carman, G.M., R.J. Buxeda, and J.T. Nickels. 1996. Phosphatidylinositol 4-kinase in *Saccharomyces cerevisiae*. In *Lipobiology* Vol. 1 .(Gross,R.W.,ed.) Jai Press LTD.Greenwich, CT.
- • Buxeda, Rosa. 1996. Active Learning Strategies for Microbiology Classes. American Society for Microbiology. Pag. 37, 41,133.
- • Buxeda, R.J., S. Diaz, L. Gaya, J.R. Lopez, L. Morell, M. Orengo, I. Padilla, and Z. Rivera.1995.Compendio de Experiencias en el Aprendizaje Cooperativo.Alliance for Minority Participation, University of Puerto Rico- Rio Piedras.
- • McDonough. V.M., R.J. Buxeda, M.E.C. Bruno, O. Ozier-Kalogeropoulos, M.T. Adeline,C.R. McMaster, R.M. Bell, and G.M. Carman. 1995. Regulation of Phospholipid Biosynthesis in *Saccharomyces cerevisiae* by CTP. *J. Biol. Chem.* 269:11018-11024.
- • Nickels, J.T., Buxeda, R.J., and G.M. Carman. 1994. Regulation of phosphatidylinositol 4-kinase from the yeast *Saccharomyces cerevisiae* by CDP-diacylglycerol. *J. Biol. Chem.*269:11018-11024.
- • Buxeda, R.J., J.T. Nickels, and G.M. Carman.1993. Regulation of the 45- and 55-kDa forms of yeast phosphatidylinositol 4-kinases by nucleotides. *J. Biol. Chem.*268: 6248-6255.
- • Nickels, J.T., Jr., R.J. Buxeda, and G.M. Carman. 1992. Purification, characterization, and kinetic analysis of a 55-kDa form of phosphatidylinositol 4-kinase from *Saccharomyces cerevisiae*. *J. Biol.Chem.* 267: 16297-16304.
- • Buxeda, R.J.,J.T. Nickels, Jr., C.J.Belunis, and G.M. Carman.1991.Phosphatidylinositol 4-kinase from *Saccharomyces cerevisiae*. Kinetic analysis using Triton X-100/phosphatidylinositol mixed micelles. *J. Biol. Chem.* 266:13859-13865.

International Courses

- • Buxeda, R. J. and N. Ocasio. 1999. Cooperative Learning Workshop: a 5 days Hand-on Experience for Faculty from Dominican Republic.Harris Stowe College, St. Louis, Missouri.
- • Buxeda, R. J. and N. Ocasio. 1998. Cooperative Learning Workshop: 5 days hand-on experiences for high school teachers from Central America. Harris Stowe College,St. Louis, Missouri.

Abstracts of Papers Presented at Meetings

- • Buxeda, R.J. 2000. Incorporating the Workplace Environment into a Course: The Industrial Microbiology Experience. American Society for Microbiology, Los Angeles, Ca
- • Buxeda, R.J., L. Morell, J. Velez and R. V squez. 2000. Summer Sation: Initiating the Undergraduate Research Experience in RS/GIS. IGARSS 2000, Hawaii.

- • Morell L., R.J Buxeda, J. Velez and R. Vasquez. 2000. Learning by Doing: Integrating Undergraduate Research and Remote Sensing & GIS Curriculum. IGARSS2000, Hawaii
- • Morell L., R. Vasquez, R. Buxeda and J. Velez. 2000 A Faculty Development Strategy for Effectively Integrating Undergraduate Research and Mentoring into the SMET Curriculum. Information Technology Based Higher Education and Training, Istanbul, Turkey
- • Buxeda, R. J. 2000. Transforming a Sequence of Science Courses. Encuentro Internacional de Educaci3n y Pensamiento, Ponce, PR
- • Buxeda, R. J. 2000. Design a Science Course using Assessment. Best Practices in Science, Engineering and Mathematics Symposium, Rio Piedras, PR
- • Buxeda R.J. 1999. A Shift in the Educational Paradigm. Univ of Colorado, Ft. Collins, CO
- • Buxeda R.J. 1999. Experiences of a Professor Redesigning a Student Centered Classroom. International Education and Cognitive Thinking Congress. Ponce, PR
- • Buxeda R.J. 1999. A Shift in the Educational Paradigm. SUNY. Stonybrook, NY.
- • Buxeda R.J. and V. Mercado. 1999. Heterotrophic Bacterial Biodiversity of a Tropical Stuary. American Society for Microbiology, Chicago.
- • Buxeda R.J. 1999. Student Profile Diversity Lead to a Research Motivating Strategy in the General Microbiology Course. American Society for Microbiology, Chicago.
- • Buxeda R. J. 1998. Teamwork in the Workplace. Alpha Delta Kappa Lecture Series, University of Puerto Rico, Mayaguez, PR.
- • Buxeda, R.J. 1998. Strategies for Designing Cooperative Learning Activities for a Science Course. A ten hours workshop series for college faculty at Ana G Mendez University System, Puerto Rico.
- • Buxeda, R. J. 1997. A Shift in the Educational Paradigm: from a Sage in the Stage to a Guide at your Side. 1997 International Conference for Exploring Teaching Alternatives, Canada.
- • Buxeda, R. J. 1997. Toward the Learning Paradigm. A workshop for the Administrative Staff of the Immaculate Conception Academy, Mayaguez, PR.
- • Buxeda, R. J. 1997. Learning Styles and Teaching Styles in a Microbiology Course. American Society for Microbiology, Miami, Florida.
- • Buxeda, R. J. 1997. Workshop: Teamwork for Principals. Colegio Universitario de Cayey.
- • Buxeda R. J. 1997. Active Learning Biology. Presenter and Session Presider. National Science Teacher Association. New Orleans, La.
- • Buxeda R. J. and L. Gay . 1997. Workshop: Learning Styles. 9th Congress on Education and Critical Thinking, Rio Piedras, Puerto Rico.
- • Buxeda R. J. 1997. Educational Research, an Element for Redesigning a Microbiology Course. Innovative Professor Annual Meeting. Interamerican University, Rio Piedras, PR.

- • Buxeda R. J. 1997. Workshop: How to Design an Effective Workshop. First Meeting of Trainner Faculty. University of Puerto Rico.
- • Buxeda R. J. 1996. Workshop: Planning and Delivering an Effective Presentation . University of Puerto Rico, Mayaguez.
- • Buxeda R. J. 1996. Methodology in Cooperative Learning Workshop. University of Puerto Rico,
- • Mayaguez.
- • Buxeda R. J. 1996. Designing Strategies for Cooperative Learning. University of Puerto Rico, Mayaguez.
- • Buxeda R. J. 1996. Cooperaive Teaching. Cayey University College, Cayey, PR.
- • Buxeda R. J. and L. Gaya. 1996. Learning Styles Workshop. Interamerican University of Puerto Rico, Metropolitan Campus, Rio Piedras, PR
- • Buxeda R. J. 1996. Cooperative Learning Workshop. University of Puerto Rico- Center for Professional Enhacement, Puerto Rico.
- • Buxeda R. J. 1996. Plenary Conference: Actively Learning Microbiology. American. Society for Microbiology, LA
- • Buxeda R. J. and L. Gaya. 1996 Instructional Goals in Teaching Introductory Biology Course. PR Alliance for Minority Participation. 3rd General Biology Annual Meeting.
- • Buxeda, R.J. 1996 Implementation of Cooperative Learning: a Wokshop for Faculty. 8vo Encuentro Nacional de Educaciøn y Pensamiento. University of Puerto Rico, Rio Piedras.
- • Rojas, C., W. Crespo and R.J. Buxeda. 1996 Physiological Role of Inositol in Saccharomyces cerevisiae. 31 ACS Junior Technical Meeting.
- • Buxeda, R. J. 1996. Learning Styles among Undergraduate Students. University of Puerto Rico, Mayaguez.
- • Buxeda, R. J. 1995. Team Work as an Essential Element in the Academic Development of Puerto Rico. Colegio Universitario de Cayey.
- • Buxeda, R. J. 1995. A Cooperative Learning Workshop for New Faculty at the University of Puerto Rico, Mayag ez. University of Puerto Rico, Mayag ez, PR.
- • Buxeda, R. J. 1995. Cooperative Learning from a Biologist Perspective. Pontificia Universidad Catçlica. Mayag ez, PR.
- • Buxeda, R. J. and I. Padilla. 1995. A Cooperative Learning Workshop for Faculty Teaching Introductory Courses at the College of Arts and Science- University of Puerto Rico. University of Puerto Rico, Mayaguez, PR.
- • Buxeda, R. J. and L. Gay . 1995. A Cooperative Learning Workshop for Faculty Teaching Biology at the University Level. Alliance for Minority Participation. University of Puerto Rico, Mayaguez, PR.
- • Buxeda, R. J. 1995. Cooperative Learning at the University Level. PR Alliance for Minority Participation. General Chemistry Workshop.
- • Buxeda, R.J. 1994. Cooperative Learning in a Microbiology Course. PR Alliance for Minority Participation. General Biology Workshop.

- • Buxeda, R.J. and Navas, V. 1995. Cooperative Learning: Experiences in a Biology Course. Segundo Encuentro de Educaci3n y Pensamiento, Region Oeste. University of PR, Mayaguez, PR.
- • Buxeda, R.J. 1994. Cooperative Learning. Pontificia Universidad Cat3lica. Ponce, PR.
- • Buxeda, R.J. and G.M. Carman. 1994. Regulation of the 45- and 55-kDa forms of phosphatidylinositol 4-kinase from *Saccharomyces cerevisiae* by lipids. Am. Soc. Microb.
- • Buxeda, R.J. 1994. Regulation of the 45- and 55-kDa phosphatidylinositol 4-kinase from *Saccharomyces cerevisiae* by the energy charge of the cell. Gamma Sigma Delta, PR.
- • Buxeda, R.J. and G.M. Carman. 1994. Lipids as effectors of PI 4-kinase from *Saccharomyces cerevisiae*. 2nd Congress of Biotechnology. Caribbean Society for Biotechnology, San German PR.
- • Buxeda, R.J. and G.M. Carman. 1994. Regulation of the 45- and 55-kDa forms of phosphatidylinositol 4-kinase from *Saccharomyces cerevisiae* by CDP-diacylglycerol. 18th Scientific Research Congress. Interamerican University, PR.
- • Buxeda R.J. and G.M. Carman. 1994. Effect of nucleotides on PI 4-kinase from *Saccharomyces cerevisiae*. University of Puerto Rico, PR.
- • McDonough, V.M., R.J. Buxeda, M.E.C. Bruno, O. Ozier-Kalogeropoulos and G.M. Carman. 1994. Regulation of phospholipid synthesis in yeast by CTP. Am. Soc. Biochem. Mol. Biol.
- • Nickels, J.T., R.J. Buxeda and G.M. Carman. 1994. Regulation of yeast phosphatidylinositol 4-kinase by CDP-diacylglycerol. Am. Soc. Biochem. Mol. Biol.
- • Buxeda, R.J., and G.M. Carman. 1993. Regulation of 55-kDa form of phosphatidylinositol 4-kinase from *Saccharomyces cerevisiae* by ADP and CTP. Robert Wood Johnson Med. School
- • McDonough, V.M., R.J. Buxeda, and G.M. Carman. 1993. Regulation of phospholipid synthesis by CTP. Theobald Smith Society.
- • Buxeda, R.J., and G.M. Carman. 1992. Kinetic analysis of the 55-kDa form of phosphatidylinositol 4-kinase from *Saccharomyces cerevisiae*. Am. Soc. Microbiol.
- • Buxeda, R.J., and G.M. Carman. 1992. Regulation of the 55-kDa form of phosphatidylinositol 4-kinase by lipids and nucleotides. Theobald Smith Society.
- • Carman, G.M., J.T. Nickels, and R.J. Buxeda. 1992. Purification, characterization, and kinetic properties of 55-kDa form of phosphatidylinositol 4-kinase from yeast. 16th Intern. Conf. Yeast Genet. Mol. Biol.
- • Buxeda, R.J. and G.M. Carman. 1991. Kinetic analysis of phosphatidylinositol 4-kinase from *Saccharomyces cerevisiae*. Theobald Smith Society.
- • Buxeda, R.J., and G.M. Carman. 1991. Kinetic analysis of yeast phosphatidylinositol 4-kinase toward Triton X-100/phosphatidylinositol mixed micelles. Am. Soc. Biochem Mol. Biol.

Continuing Education:

Workshops:

- • 1998. The Newspaper as a tool for Student Learning. El Nuevo Dia, Lajas,PR.
- • 1998. The Importance of Non Traditional Learning Modalities in Puerto Rico Higher Education System. 5 hours Workshop.Higher Education Council.
- • 1998. Learning Styles Workshop. University of PR, Carolina, PR.
- • 1997. Proposal Writing Workshop.University of Puerto Rico, Mayaguez.
- • 1997. Assessment in the Classroom- Thomas Angelo. AAHE, Washington, DC
- • 1997. Teaching Methodology. First training for Faculty Trainers. University of Puerto Rico.
- • 1996. Assessment in the Classroom.Aguadilla Regional College, Aguadilla, PR.
- • 1996. Introduction to Power Point. University of Puerto Rico, Mayaguez.
- • 1996. International Conference in Exploring Teaching Alternatives. ISETA, Columbus, Ohio.
- • 1996. Level 1 Instructor on Parliamentary Procedure. Parliamentary Procedure School.
- • 1996. Teaching Effective Techniques. University of Puerto Rico. Mayaguez.
- • 1996. World Wide Web Workshop. University of Puerto Rico, Cayey.
- • 1996. Teaching Effectiveness Workshop. University of Puerto Rico. Mayaguez.
- • 1995. Women and Science Conference. NSF. Washington, DC.
- • 1994. Microbiology for the 21st Century: Redesigning the Curriculum. Sociedad de Microbiólogos de Puerto Rico. University of Puerto Rico-Rio Piedras
- • 1994. How to Write a Proposal. University of Puerto Rico-Mayaguez.
- • 1994. Escuela, Universidad y Empresa: Hacia un Nuevo Compromiso de Calidad. Interamerican University. Law School-Rio Piedras, Puerto Rico.
- • 1993. Recombinant DNA Technology: Isolation, Cloning and Characterization of DNA.University of PR-Mayaguez.
- • 1993.Currículo para el Fortalecimiento de la Docencia en el Area de Metodología. University of Puerto Rico, Mayaguez Campus.
- • 1993. Cooperative Learning Techniques. Puerto Rico Alliance for Minority Participation.University of Puerto Rico, Mayaguez Campus.

Internship:

- • Summer 1994. Quality Control Identification of Microorganisms. Bristol Myers-Squibb.Mayaguez, Puerto Rico.
- • 1996. Case Writing and Teaching Program. Harvard University

Committee Assignments at UPR, Mayaguez:

- • Curriculum Innovation Committee (PR AMP), 1998

- • Development Committee-Chair 2000
- • Model Faculty Institutional Committee, 1997- present
- • Biology Department Personnel Committee, 1997- present
- • Advisor, Student Society for Industrial Microbiology, 1994- 1998
- • Premedicine Institutional Committee, Member,1993-Present
- • Assesor for First Year Program- Academic Affair Dean Office. 1997
- • Faculty Committee to Develop the Arts and Sciences College Bylaws.1996
- • Biology Curriculum Committee, Member, 1993-1997
- • Charles Darwin Award. Chairman, 1993-1995 / Member 1996
- • Biology New Building Committee, Member, 1993-1995
- • Department Developing Committee, Member, 1993-94.

Committee Assigments:

- • 1998, 2000 Comittee for Development of Department Strategic Plan. Biology Department University of Puerto Rico, Mayaguez.
- • 1998- Present, Curriculum Advisor for Partnership for Spatial and Computational Research. NASA Grant
- • 1997-99. Board of Director, International Society for Exploring Teaching Alternatives
- • 1997 . Member of the Organizing Committee for the 1997 Undergraduate Microbiology Conference, American Society for Microbiology, Ft. Lauderdale, Florida
- • 1995. Board of Director, Caribbean Society for Biotechnology