ANTON S. WALLNER, Ph.D.

Department of Physical Sciences Barry University Miami Shores, FL

CAREER OBJECTIVE

To use my academic, research, and administrative skills as the Dean of the College of Humanities and Natural Sciences

PROFESSIONAL AND ADMINISTRATIVE POSITIONS

Associate Dean of Undergraduate Programs – Barry University August 2008-Present Chair and Professor of Chemistry – Barry University August 2000- Present

Professional Accomplishments:

Increased Revenue over 100% (\$800,000 in 2000/01 to \$3,500,000 in 2011/12) Increased Chemistry Majors (18 students in 2000 to 50 students currently) Increased Total Course Enrollment (783 students in 2000/01 to 1600 students in 2011/12) Increased Sections Offered (67 in 2001/02 to 97 in 2011/12) Led Physical Sciences Faculty Retreat – Connecting course content with rearticulated University **Mission Statement** Developed Departmental Mission Statement, Learning Goals, and Outcomes with faculty Developed and Currently Offering New Biochemistry Specialization Created a More Equitable Faculty Load Policy Created New Courses (Advanced Spectroscopy and Senior Seminar) Improved Existing Courses (Physical Chemistry I, II and Lab, Quantitative Analysis with Lab) Improved General Chemistry I and II with Labs in collaboration with Departmental Faculty Awarded (as PI) Funded Grants (\$2,500,000 total) Contributed to Funded University-wide Minority Scholarship Grant (\$2,000,000) Co-Chaired Education Support Subcommittee for SACS Reaccreditation 2009-present Co-Chaired Educational Programs Subcommittee for SACS Reaccreditation 2001-2003 Established Physical Sciences Honor Scholarship (Endowed April 2007) Formalized SI (Discussion) Sections Initiated Annual Science Olympiad for Area High School Students (200 per year attend)

Associate Professor of Chemistry – Missouri Western State College August 1996-June 2000

Professional Accomplishments:

Tenured August 1997

Published 3 peer reviewed articles and 1 book supplement

Authored Funded Grants (\$215,000 total)

Received Jesse Lee Myers Excellence in Teaching Award (1998)

Created New Courses (Applied Spectroscopy, Physical Chemistry for Biological Sciences with

Lab, Honors General Chemistry Lab)

Served as Vice-President of Faculty Senate Assistant Professor of Chemistry – Missouri Western State College August 1992-June 1996

Professional Accomplishments:

Awarded ASEE Summer Faculty Research Position (Summer 1994 and Summer 1995) Awarded Funding for 2 NSF Summer Workshops (1992 and 1996) Published 4 peer reviewed articles Developed Department's Writing Intensive Program and Course Initiated Undergraduate Research Program

EDUCATION

Ph.D. Physical Chemistry, Department of Chemistry, Case Western Reserve University, Cleveland, Ohio (August 1992) Dissertation: "Applications of MRI to Ceramics and Polymers" Advisor: Dr. William M. Ritchey

M.S. Analytical Chemistry, Department of Chemistry, University of Michigan, Ann Arbor, Michigan (April 1988)

B.S. Chemistry (ACS accredited), University of Wisconsin-Milwaukee, Milwaukee, Wisconsin (May 1986) Cum Laude GPA 3.68/4.00

RESEARCH INTERESTS

NMR Studies of Creatine Monohydrate, Novel Creatine Salts, and Other Sports Supplements Magnetic Resonance Imaging (MRI) of Materials: Ceramics, polymers, rocket propellants/explosives NMR Characterization of UV Stabilized poly (methyl methacrylate) NMR Studies of Fast and Slow Set Polymers Atomic Absorption Determination of Heavy Metals in Soils and Water Use of Writing to Learn Chemistry Chemical Education/Laboratory & Curriculum Development Undergraduate Research Mentoring

PROFESSIONAL LEADERSHIP

Associate Dean of Undergraduate Programs, Barry University August 2008-Present Chair, Department of Physical Sciences, Barry University August 2000-Present Curriculum and Policy Committee August 2000-Present Undergraduate Council August 2008-Present Institutional Effectiveness Committee (SACS self-study committee) (Educational Support Subcommittee co-Chair) March 2009-Present Master Plan Steering Committee September 2009-2011 Standing Committee on Student Retention August 2008-May 2009 Dean of College of Arts and Sciences Search Committee 2007 Faculty Search Committees 2008, 2007, 2006, 2005, 1998, 1997, 1995 Laboratory Technician Search Committee 2010 Research and Grants Council August 2002-June 2005 Judicial Board August 2001-Present SACS Educational Programs Committee - A&S subcommittee report & co-chair 2001-03 Director of Science Olympiad 2002-Present Faculty Senate Vice President August 1999-July 2000 Promotion and Tenure Committee August 1997-May 1999 (Secretary 1997-98) Curriculum Committee August 1994-May 1997 (Subcommittee Chair 1995-97) Honors Committee August 1995-2000 (Scholarship/Recruitment Chair 1998-2000) Wellness Committee August 1997-2000 Director of Chemathon 1994-1999 Freshman Advisor 1998-2000 Writing Across the Curriculum (WAC) Advisory Board 1995-2000 Faculty Advisor, Sigma Lambda (GLBT student group) 1997-2000 Freshman Interest Group (FIG) Advisory Board 1998-2000 Promoting Research in Medical Occupations (PRIMO) Chemistry Director 1996

GRANTS AND AWARDS

- Department of Energy Grant # DE-SC0005059 "Enhancing a Student-Centered Approach to Science Education and Research Project" October 2010 (\$1,166,400) A. S. Wallner
- Department of Energy Grant # DE-SC0001696 "Barry University Physical Sciences Improvement Project" September 2009 (\$739,886) A. S. Wallner

Sabbatical Spring 2009 (January-August) Monash University, Melbourne, Australia

- Department of Energy Grant # DE-FG02-08CH11500 "Interdisciplinary Science Program at Barry University" September 2008 (\$383,000) A.S. Wallner
- Miami Shores Mayor's Task Force Barry Univ. Science Olympiad March 2007, 2008, 2011, 2012 (\$2,000).

NIST SURF - Undergraduate Research Program, Bethesda, MD April 2004 (\$4,000).

- "NMR to Improve Educational and Research Experiences" Department of Defense Infrastructure Support Program for HBCU/MI, June 2002 (\$180,000) A. S. Wallner (PI), M. Aloya, P. Higgs, J. Boulos, G. Fisher.
- CELT Title III Grant "Installation of Document Camera for Mulit-Media Classroom" August 2001 (Funds for document camera placed in classroom)
- "Cross Course Group Projects Using NMR to Simulate an Industrial Setting" DUE-9950492, NSF CCLI-A&I, September 1, 1999 (\$99,950 NSF and \$99,950 matching from MWSC Foundation) A.S. Wallner (PI), B. Caldwell, S.L. Hiley.

Jesse Lee Myers Award for Excellence in Teaching, MWSC, 1998 (\$2000 Award).

- "Intermediate and Advanced Interpretation of 1D and Basic Interpretation of 2D NMR Spectra" NSF Undergraduate Faculty Workshop July 30-August 8, 1996 University of Rhode Island, Kingston, Rhode Island (Tuition, Room, and Board).
- "Instrument Interfacing" NSF Workshop December 13-18, 1992 Georgia Institute of Technology, Atlanta, Georgia (Tuition, Room, and Board).
- American Society for Engineering Education Summer Faculty Research Position June-August 1994 and June-August 1995, Naval Air Warfare Center-Weapons Division, China Lake, CA.
- "Assessing Student Views and Work in a Writing-Intensive Senior Seminar" FFR Award August 1999 (\$2643) A.S. Wallner and E. Latosi-Sawin.
- "Enhanced Problem Solving Skills Using Prepared Examples in CHE120" FFR Award (\$850 Reward Funding August 1998 and \$504 Incentive Funding December 1997) A.S. Wallner.
- "CD-ROM Technology in General Chemistry" FFR Award December 1996 (\$1000) A.S. Wallner.
- "Conversion to a Multimedia Classroom-Adaptation to a CD-ROM Textbook" FFR Award August 1996 (\$6000) A.S. Wallner, L.L. Lambing, and L.J. Archer.
- URSI Grants for Undergraduate Research (\$500 stipend for student and faculty member for summer research) 1999 (2 students), 1998, and 1997.

PUBLICATIONS

- "NMR Spectroscopy in the Undergraduate Curriculum" ACS Symposium Series, April 2013, L. Anna, D. Soulsby, A.S. Wallner (editors)
- "Two-Dimensional ¹H NMR Spectroscopy of 1,1'-Diethyl-2,2'-Cyanine Iodide in Water and Methanol" *J. Molecular Structure* **2008**, 875, 447. I. Struganova, A. S. Wallner, L. Pazos
- "General Chemistry II CHE 112L Lab Manual" A.S. Wallner, M. Aloya, I. Struganova, P. Higgs, M Elliott, January 2002.
- "The Use of Writing in Chemistry" invited review CHED Newsletter, Division of Chemical Education, Inc. American Chemical Society, Winter 2001.
- "General Chemistry I CHE 111L Lab Manual" A.S. Wallner, M. Aloya, I. Struganova, P. Higgs, M. Elliott, August 2001.
- "The Validity of Stirling's Approximation: A Physical Chemistry Project" J. Chem. Ed. 1999, 76,1395. A. S. Wallner and K. A. Brandt.
- "Technical Writing and Communication in a Senior-Level Seminar" *J. Chem. Ed.* **1999,** *76,* 1404. A. S. Wallner and E. Latosi-Sawin.

"Example Problems for General Chemistry II" McGraw-Hill: St. Louis, 1998. A. S. Wallner.

- "Magnetic Resonance Imaging Study of Solid Rocket Propellants and Liners" J. Appl. Poly. Sci. 1996, 62, 341. A.S. Wallner, L.H. Merwin, R.A. Nissan, T.S. Stephens.
- "Applications of Magnetic Resonance Imaging to Ion-Exchange Resins" J. Appl. Poly. Sci. **1995**, 57, 1. A.S. Wallner and W. M. Ritchey.
- "Application of Magnetic Resonance Imaging to Materials Research" *Appl. Spec. Rev.* **1994**, *29(3-4)*, 233. A.S. Wallner, L. Maylish-Kogovsek, W.M. Ritchey.
- "Bridging the Gap: Academic and Professional Communication in Science" Journal of the Midwest Modern Language Association 1994, 27(2), 59. A.S. Wallner and E. Latosi-Sawin.
- "Void Distribution and Susceptibility Differences in Ceramic Materials Using MRI" *J. Mat. Res.* 1993, 8(3), 655. A.S. Wallner and W.M. Ritchey.

PRESENTATIONS/POSTERS (Student researchers in bold)

- "Kinetic degradation study and solubility analysis comparing di-creatine maleate to commercial samples of creatine" **B. Kuhl** and A.S. Wallner. 4th STEM Symposium, Barry University, Miami Shors, FL April 2012
- "K inetic degradation study and solubility analysis comparing di-creatine maleate to commercial samples of creatine" **B. Kuhl** and A.S. Wallner. 243rd National ACS meeting, San Diego, CA March 2012
- "NMR Spectroscopy in the Undergraduate Curriculum" D. Soulsby, A.S. Wallner, L. Anna (Symposium co-organizer and co-presider) 243rd ACS meeting, San Diego, CA, March 2012
- "Synthesis and characterization of creatine ascorbate" **J. Colon**, A.S. Wallner 3rd STEM Symposium, Barry University, Miami Shores, FL, April 2011.
- "Creatine orotate stability and kinetics analyzed using NMR" **B. Garner**, A.S. Wallner 3rd STEM Symposium, Barry University, Miami Shores, FL, April 2011.
- "Synthesis, characterization and kinetic degradation study of di-creatine maleate followed by NMR." **B. Kuhl**, A.S. Wallner 3rd STEM Symposium, Barry University, Miami Shores, FL, April 2011.
- "Synthesis and characterization of creatine ascorbate" **J. Colon**, A.S. Wallner 241st ACS meeting, Anaheim, CA, March 2011.
- "Creatine orotate stability and kinetics analyzed using NMR" **B. Garner**, A.S. Wallner 241st ACS meeting Anaheim, CA, March 2011.
- "Synthesis, characterization and kinetic degradation study of di-creatine maleate followed by NMR." **B. Kuhl**, A.S. Wallner 241st ACS meeting, Anaheim, CA, March 2011.

- "NMR Spectroscopy in the Undergraduate Curriculum" D. Soulsby, A.S. Wallner (Symposium coorganizer and co-presider) 241st ACS meeting, Anaheim, CA, March 2011.
- "Comparison of NMR analysis to HPLC method following the degradation of creatine salts: Dicreatine and tricreatine citrate in various formulations" **K. Edwards,** A.S. Wallner STEM Symposium, Barry University, Miami Shores, FL April 2010.
- "Creatine orotate and beta-alanine stability and kinetics analyzed using NMR" **B. Garner**, A.S. Wallner. STEM Symposium, Barry University, Miami Shores, FL April 2010.
- "Comparison of NMR analysis to HPLC method following the degradation of creatine salts: Dicreatine and tricreatine citrate in various formulations" **K. Edwards,** A.S. Wallner 239th ACS Meeting, San Francisco, CA, March 2010.
- "Creatine orotate and beta-alanine stability and kinetics analyzed using NMR" **B. Garner**, A.S. Wallner 239th ACS Meeting, San Francisco, CA, March 2010.
- "NMR Spectroscopy in the Undergraduate Curriculum" A.S. Wallner, L.J. Anna, D. Soulsby Coorganizers and co-presiders 239th ACS meeting, San Francisco, CA, March 2010.
- "Nuclear Magnetic Resonance Studies of the Stability of Nutritional Supplements" A.S. Wallner Barry University Faculty Seminar Series (Sabbatical research presentation) January 2010.
- "Creatine and beta-alanine Stability and Kinetics Analyzed Using NMR and HPLC" **K. Edwards**, A.S. Wallner 237th ACS Meeting, Salt Lake City, UT, March 2009.
- "Comparison of NMR Analysis to HPLC Method Following the Degradation of Creatine Monohydrate in Various Formulations" **K. Edwards, J. Inniss**, A.S. Wallner 235th ACS Meeting, New Orleans, LA, April, 2008.
- "Water Testing at the Everglades" J. Boulos, Z. Zajickova, A.S. Wallner, Water Conference, Barry University, Miami Shores, FL October 2007.
- "Writing in Chemistry: A 15-year Retrospective" A. S. Wallner, P. I. Higgs, E. Latosi-Sawin 232nd ACS Meeting, San Francisco, CA September 2006
- "¹H and Two-Dimensional NMR Spectroscopy of 1,1'-Diethyl-2,2'-Cyanine Iodide in Water and Methanol. L. Pazos, J. Kelly, I. Struganova, A.S. Wallner 232nd ACS Meeting, San Francisco, CA September 2006
- "Stability of Creatine Monohydrate in Various Solvents" **H. Harricharran**, A. S. Wallner 231st ACS Meeting, Atlanta, GA, March 2006.
- "The Use of Writing in Chemistry", A.S. Wallner, Chair and Organizer of daylong session at National ACS Meeting, Chicago, IL August, 2001.

- "Establishing/Institutionalizing Writing in the Chemistry Curriculum" A.S. Wallner, E. Latosi-Sawin 222nd ACS Meeting, Chicago, IL August, 2001.
- "Use of Writing Throughout the Chemistry Curriculum" A.S. Wallner, E. Latosi-Sawin 221st ACS Meeting, San Diego, CA April, 2001.
- "Investigations of Slow-set and Fast-set Polymers" C.S. Gieselman, A.S. Wallner 219th ACS Meeting, San Francisco, CA March 2000.
- "Synthesis Optimization of UV Stabilized Poly(methyl methacrylate)" **D.M. Aberer**, A.S. Wallner 219th ACS Meeting, San Francisco, CA March 2000.
- "Bomb Calorimetry of Sugars" **B. Field**, A.S. Wallner 219th ACS Meeting, San Francisco, CA March 2000.
- "Assessing Student Views and Work in a Senior Level Seminar" A.S. Wallner and E. Latosi-Sawin 218th ACS Meeting, New Orleans, LA August 25, 1999.
- "Teaching Polymers to Undergraduates at Missouri Western State" A.S. Wallner 218th ACS Meeting, New Orleans, LA August 24, 1999.
- "Technical Writing in Chemistry" Society for Technical Communication, Missouri Western State College, A.S. Wallner St. Joseph, MO April 22, 1999.
- "Chemical Educators Association: Missouri Western State College's Outreach to Local High School Teachers" A.S. Wallner 217th ACS Meeting, Anaheim, CA, March 21-24, 1999.
- "Synthesis and Characterization of UV-Stabilized PMMA" **J.D. Richard**, A.S. Wallner 217th ACS Meeting, Anaheim CA, March 21-24, 1999.
- "Poly(methyl methacrylate) and Creatine Monohydrate: A Report on Two Undergraduate Research Projects" A.S. Wallner Seminar at Arkansas State University, Jonesboro, AR, Feb. 26, 1999.
- "Academic and Professional Communication in Science" A.S. Wallner 52nd Annual Rocky Mountain Modern Language Association, Salt Lake City, UT, Oct. 10th, 1998.
- "Synthesis and Characterization of UV-Stabilized PMMA" **J.D. Richard**, A.S. Wallner Undergraduate Research Poster Session, MWSC, October 20, 1998.
- "The Validity of Stirling's Approximation: A Physical Chemistry Project" A.S. Wallner and K.A. Brandt, Missouri Academy of Sciences, St. Joseph, MO April 16, 1998.
- "Determination of the Effect of an Acidic Media on Creatine Monohydrate" **J.H. Thomas**, A.S. Wallner 215th ACS Meeting, Dallas, TX, March 29-April 2, 1998, Poster #173.

- "Determination of the Effect of an Acidic Media on Creatine Monohydrate" **J.H. Thomas**, A.S. Wallner Undergraduate Research Poster Session, Missouri Western State, October 21, 1997.
- "Chemistry and Mathematics: When is Stirling's Approximation Valid?" A S. Wallner Mathematics Colloquium, Missouri Western State College, St. Joseph, MO October 16, 1997.
- "Assessment Methods in a Writing Intensive Senior Seminar Chemistry Class" A.S. Wallner, E. Latosi-Sawin 213th National ACS Meeting San Francisco, CA April 13-17, 1997
- "Synthesis and NMR Characterization of 2-mesyl-4'-methoxyacetophenone" **R. Herpel**, A.S. Wallner, R. Givens 213th National ACS Meeting San Francisco, CA April 13-17, 1997.
- "Curriculum Innovations A Panel Discussion" A.S. Wallner 212th National ACS Meeting, Orlando, Florida August 24-28, 1996.
- "Pseudospectral Determination of Bound and Resonance States" K. Osborn, A.S. Wallner Missouri Academy of Science, Springfield, MO April 19, 1996.
- "A Field Approach to Critical Thinking" A.S. Wallner Faculty Development Seminar, Missouri Western State College, St. Joseph, MO April 17, 1995.
- "NMR Characterization of UV Stabilized Compounds of Poly(methyl) methacrylate" **K. Ream-Nelson**, A.S. Wallner Missouri Academy of Science, Maryville, Missouri April 21, 1995.
- "MRI Investigation of Rocket Motor Propellants and Liners" A.S. Wallner, R.A. Nissan, L.H. Merwin, T.S. Stephens 36th ENC Boston, Massachusetts March 26-30, 1995.
- "MRI Investigation of Rocket Motor Propellants and Liners" A.S. Wallner, R.A. Nissan, L.H. Merwin, T.S. Stephens 209th National ACS Meeting Anaheim, California April 2-6, 1995.
- "NMR Characterization of UV Stabilized Compounds of Poly(methyl) methacrylate" **K. Ream-Nelson**, A.S. Wallner, 36th Annual ENC, Boston ,MA March 26-30, 1995.