James Darren Foster, Ph.D.

Curriculum Vitae

Department of Biomedical Sciences
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EDUCATION

1989-1994	**Ph.D.** -Biochemistry & Molecular Biology with **Dr. Robert C. Nordlie** (12/21/94), University of North Dakota (UND), Grand Forks, North Dakota (GPA 4.0/4.0) Dissertation Title – "Examination of the Putative Glucose-6-Phosphate Translocase Component, T_1, of the Glucose-6-Phosphatase System"
1985-1989	**B.S.-Chemistry**, *Summa Cum Laude*, Bemidji State University (BSU), Bemidji, Minnesota

ACADEMIC APPOINTMENTS

2016-present	Assistant Professor (Tenure Track), Department of Basic Sciences, University of North Dakota School of Medicine & Health Sciences, Grand Forks, North Dakota
2013-2016	Assistant Professor, Department of Basic Sciences, University of North Dakota School of Medicine & Health Sciences, Grand Forks, North Dakota
2012-present	Adjunct Assistant Professor, Department of Chemistry, University of North Dakota, Grand Forks, North Dakota
2011-2013	Assistant Professor, Department of Biochemistry & Molecular Biology, University of North Dakota School of Medicine & Health Sciences, Grand Forks, North Dakota
1999-2011	Research Assistant Professor, Department of Biochemistry & Molecular Biology, University of North Dakota School of Medicine & Health Sciences, Grand Forks, North Dakota

PROFESSIONAL EXPERIENCE

2001-2005	Research Associate with **Dr. Roxanne Vaughan,** Department of Biochemistry and Molecular Biology, University of North Dakota School of Medicine and Health Sciences, Grand Forks, North Dakota
1994-1999	Post-Doctoral Research Associate with **Dr. Robert C. Nordlie**, Department of Biochemistry & Molecular Biology, University of North Dakota School of Medicine & Health Sciences, Grand Forks, North Dakota

PROFESSIONAL EXPERIENCE (cont.)

1989 Summer Intern, Biopolymer Unit, Biotechnology Division, The Upjohn Company, Kalamazoo, Michigan with **Drs. Ferenc Kézdy, Roger Poorman and Robert Heinrikson**

TEACHING EXPERIENCE

Undergraduate

Biochemistry 494 – Directed Studies –Research (2012 – present) 15 students to date

Chemistry 492 – Senior Capstone Research (2012 – present) 11 students to date

Biochemistry 301 – 6 Lectures - Enzymes: Properties, Functions, Kinetics, Inhibition and Regulation (1997-2002) – Glycolysis and Glycogen Metabolism (2001 and 2002)

Clinical Laboratory Science 238 – 1 lecture - Acquiring Scientific Info. *via* the Internet (1998-2002)

Graduate

Biochemistry 510 Research Tools
- Computers in the Scientific Setting, (1995-1998)
- Electrophoresis (1998)
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Biochemisrty 521 Seminar (2011)

Biochemistry 533 Advanced Topics
Principles of Enzyme Kinetics (2012, 2014) 16 lecture hours

BIMD 512 - Seminars in Biomedical Sciences
–Seminar presenter - Structure/Function Relationships and Regulation of the Glucose-6-Phosphatase System (2000)

BIMD 500 Foundations of Biomedical Science
– 5 Lectures - Glycolysis and Glycogen Metabolism (2000 - 2013), Gluconeogenesis and other aspects of glucose homeostasis (2006-2013)
- Bioinformatics – NCBI (2001)

BIMD 501 Scientific Discovery
(Module 2) curriculum design team (2014-) Module 2 director (2016-)
– Week 2 (Enzymology and Enzyme Kinetics) and Week 4 (Carbohydrate Metabolism) 12 contact hours (2014)
– Week 3 (Obesity) and Week 6 (Mitochondrial Dysfunction and Metabolic Syndrome) 18+ contact hours (2015)

TEACHING EXPERIENCE (cont.)

Graduate (cont.)

BIMD 501 Scientific Discovery (cont).

– Week 1 (Protein targeting/protein-protein interactions; Week 3 (posttranslational modifications); Weeks 4 & 5 (Enzymes, Activity, Inhibition and Assays) 12 contact hours (2016-)

PPT 505 Methods in Pharmacology and Physiology
- 1.5 Lecture h– Electrophoresis (2011-2015)

PPT 530 Advanced Neurochemistry –
- 1.5 Lecture h- Dopamine and other Catecholamines (2012-2015)

BIMD 522 Principles of Neuropharmacology
- 4 Lecture h - Enzyme kinetics and receptor binding kinetics (2016-present)

Neuroscience Journal Club - Facilitator - 16 contact h (Fall 2016, Spring 2017)

Medical

Patient Centered Learning (PCL)

Year 1, Block 1 – 3 Lectures –Glycolysis, (2001-) Glycogen Metabolism, Pentose Phosphate Pathway (2001-) Trafficking of Proteins (2010-)
Year 1, Block 2 – 1 Lecture - Proteoglycans, Glycoproteins and Glycolipids (1999, 2000, 2009)
Year 1, Block 4 (neurobiology) – 8 Weeks as a small group Facilitator (2000 and 2001)
Year 1, Block 2 (immuno, cardio, musculoskeletal and respiratory) – 8 Weeks (56 contact h) as a small group Facilitator (2001 and 2002)
Year 2, Block 7 (GI, Renal, Gynecology) – 8 Weeks (56 contact h) as a small group Facilitator (2010-)

PROFESSIONAL MEMBERSHIPS AND HONORARY SOCIETIES

Society of Phi Lambda Upsilon (1989-)
Society of Sigma Xi (1992-)
American Society for Biochemistry and Molecular Biology (1995-)
American Association for the Advancement of Science (1997-)
American Diabetes Association (1999-2013)
North Dakota Academy of Science (2000-)
Society for Neuroscience (2002-)
International Transmembrane Transporter Society (2015-)

SCHOLASTIC AND SCIENTIFIC HONORS

2002	UND School of Medicine Outstanding Block Instructor Award
1994	Who's Who in American Universities and Colleges
1993	UND Graduate School Alumni Prize
1992	UND Society of Sigma Xi Outstanding Graduate Student Research Award
1991	UND Department of Biochemistry & Molecular Biology Ya-Pin Lee Award as the Outstanding Graduate Student in the Department
1989	BSU Outstanding Graduate Senior in Chemistry Award
1988	Who's Who in American Universities and Colleges
1988	BSU Lakehead Science Scholarship
1987	BSU William Britton Science Scholarship
1986	BSU Helen Tartar Memorial Science Award
1985	BSU University Honor Scholarship
1985	Presidential Academic Fitness Award
1985	Greenbush Public High School Science Merit Scholarship
1983	Eagle Scout Award, Boy Scouts of America

GRANTS AND FELLOWSHIPS

Active

2R15 DA031991-02A1 (**Foster PI**) 8/15/2017-6/30/2019
NIH/NIDA $417,000
Dopamine Transporter Palmitoylation competitive renewal

R01 DA035263-01A1 (PI Galli) 4/1/2014-3/31/2019
NIH/NIDA $48,020
The dopamine transporter's lipid interactions: understanding transporter function
Role: **Co-I, UND Subcontract**

ND EPSCoR (PI Hovde) 8/15/18-8/14/19
NSF $21,872
Doctoral Dissertation Assistantship (IIP-DDA)
Role: **Research Mentor**

REU Site Award 1359243 (PI Doze) 4/11/2014-4/15/2019
NSF $812,878
REU Site: Genes & the Environment: Research Experiences for Undergraduates from Rural & Tribal Colleges
Role: **Research Mentor**

GRANTS AND FELLOWSHIPS (cont.)

Completed

1997 American Society for Biochemistry & Molecular Biology Travel Fellowship
(17th International Congress of Biochemistry & Molecular Biology)

1999 American Society for Biochemistry & Molecular Biology Postdoctoral Travel Award

ND EPSCoR Infrastructure Improvement Program – Seed Grants (IIP-SG) (**Foster- Co-investigator**),
National Science Foundation – 5/1/2002 – 4/30/2004 ($37,500)
Phosphorylation of Human Dopamine Transporters

International Research Grant (**PI Foster**) 7/1/2007-6/30/2008
Parkinson's Disease Foundation $50,000
Dopamine Transporter Phosphorylation and Membrane Raft Localization

UND Faculty Research Seed Grant (**PI Foster**) 7/1/2007 – 6/30/2008
University of North Dakota $10,570
Palmitoylation, Trafficking, and Regulation of the Dopamine Transporter

UND COBRE Neuroscience Pilot Grant (**Foster -Co-PI**) 8/9/2010-5/31 /2011
NIH/NCRR $60,000
Molecular mechanisms of neurodegenerative disorders: A role for environmentally-induced oxidative stress in the development of Parkinson's Disease

R01 (PI Vaughan) 8/1/2009-8/31/2012
NIH/NIDA $500,000
Phosphorylation and Regulation of Dopamine Transporters
Role: **Co-Investigator**

UND COBRE Neuroscience Pilot Grant (**Foster -Co-PI**) 8/9/2011-5/31 /2012
NIH/NCRR $40,000
Molecular mechanisms of neurodegenerative disorders: A role for
environmentally-induced oxidative stress in the development of Parkinson's Disease

UND COBRE Neuroscience Pilot Grant (**Foster -Co-PI**) 8/9/2011-5/31 /2012
NIH/NCRR $40,000
Alpha Synuclein and Dopamine Transporter Palmitoylation

UND COBRE Neuroscience Pilot Grant (**Foster -Co-PI**) 9/15/2012-5/15 /2013
NIH/NCRR $50,000
Potential cholesterol interaction motifs in the dopamine transporter

GRANTS AND FELLOWSHIPS (cont.)

Completed (cont.)

S10 (Grove PI) 7/15/2013-7/14/2014
NIH/ $358,112
Acquisition of a TIRF/Widefield Fluorescent Microscope for Cell Biology and Neurochemistry
Role: **Minor User**

UND COBRE Neuroscience IP Pilot Grant (**Foster -Co-PI**) 9/25/2015-5/13 /2016
NIH/NCRR $43,000
DAT Monoclonal Antibody Commercialization

R01 DA038058 (PI Galli) 7/1/2014-6/30/2017
NIH/NIDA $30,065
Amphetamine Regulation of Dopamine Transport
Role: **Co-I**, **UND Subcontract**

R15 DA031991-01(**Foster PI**) 9/15/2011-9/14/2015
NIH/NIDA $405,000
Dopamine Transporter Palmitoylation

Research Enhancement Award Program 8/20/2015-8/19/2016
UND $25,000
Culturing and Imaging Primary Dopaminergic Neurons
Role : **PI**

Pending

NSF 17-589 (**Foster Co-PI**) 6/01/2018- 5/30/2021
NSF/MCB $1,042,668
An emerging role for reversible palmitoylation and phosphorylation as part of a signaling barcode that mediates transporter function
Submitted 11-20-2017, under revision, resubmission Feb. 2019

R21 (**Foster PI**) 4/1/2018-3/31/2020
NIH/NIDA $275,000
Monoamine Transporter Palmitoylation
Priority score 54 – Oct 2017, revised and resubmitted Nov. 16, 2018

P20 - COBRE (Ghribi -PI) 10/1/2018 – 9/30/2023
NIH/NIGM $1,000,000
Peripheral Stress & Brain Dysfunction
Dopamine transporter palmitoylation and phosphorylation status may alter response to drugs of abuse
Role (**Foster – PD**)
Submitted January 23, 2018, under revision, resubmission January 24, 2019

Submitted-not Funded

S10 (Grove PI) 7/15/2017-7/14/2018
NIH/NIGM $500,000
Acquisition of a Superresolution Confocal Microscope for Cell Biology and Neurochemistry
Role: **Minor User**
Not Funded, resubmission pending

R01 (PIs Ohm, Singh, Wu) (RFA) 9/29/10 –Not Funded
NIH $1,250,000
Environmental toxin-induced epigenomic changes associated with Parkinson's Disease
Role: Co-Investigator

NSF 13-510 (**Foster Co-PI**) 7/01/2016- 6/30/2019
NSF/MCB $688,338
Cholesterol Regulation of Secondary Active Transporters
Submitted 8/14/2015

UNIVERSITY OF NORTH DAKOTA COMMITTEE MEMBERSHIP AND APPOINTMENTS

2002-2013 Biochemistry and Molecular Biology Research Committee
2002-2013 Biochemistry and Molecular Biology Education Committee
2002-2013 Biochemistry and Molecular Biology Equipment Officer
2005- UND Radiation Safety and Hazardous Materials Committee
2005- UND Graduate Faculty, Associate Membership (2005), Full Membership (2014)
2005- Organizer, Robert C. Nordlie Lectureship
2011 Organizing Committee, UNDSMHS Research Retreat
2012-2015 UNDSMHS Basic Science Graduate Curriculum Committee
2013 UNDSMHS Basic Science Graduate Curriculum Work Group
2013 UNDSMHS Research Strategy & Infrastructure Task Force
2014- UNDSMHS Educational Resources Committee
2014-18 Biomedical Sciences Graduate Admissions Committee
2014- Biomedical Sciences Curriculum Module 2 Design Team
2014-15 Biomedical Sciences Neuroscience Track Design Team
2014-16 UNDSMS Transition Champion Team
2015 Organizing Committee, Basic Sciences Graduate Research Retreat
2015- UNDSMHS Biomedical and Health Sciences Curriculum Committee (Co-Chair)
2015- Biomedical Sciences Web Site Committee
2015- Biomedical Sciences Undergraduate Education Committee
2015-16 Biomedical Sciences New Building 2nd Floor Equipment Moving Coordinator
2018- Medical Student Academic Performance Committee subcommittee faculty pool
2018- UNDSMHS Research Committee
2018-2019 Biomedical Sciences Educator Scholar Faculty Search Committee

Graduate and Undergraduate Student Committee Membership

Graduate: (Bold indicates mentor or co-mentor)

Maria Laura Parnas (PhD)	2003-2006
Balachandra Gorentla (PhD)	2005-2008
Biswaranjan Pani (PhD)	2006-2009
Huang Huang (MS)	2007-2010
Amy Moritz (PhD)	2008-2011
Jordan Karlstad (MS)	2010-2011
Sathya Challa (PhD)	2010-2014
Aaron Mehus (PhD)	2011-2013
Rejwi Acharya (PhD)	2011-2014
Bruce Felts (PhD)	2011-2015
Danielle Pinsonneault (PhD)	2011-2016
Drew Seeger (PhD)	2012-2017
Danielle E. Rastedt (PhD)*	**2012-2015**
Madhur Shetty (MS)	**2013-2015**
Daniel Stanislowski (PhD)	**2013-**
Nafisa Ferdous (MS)	2015-2017
Michael Tomlinson (PhD)	2016-
Jared Schommer (PhD)	2016-2018
Moriah Hovde (PhD)	**2016**-
Ashrifa Ali (PhD)	2017-
Michael Allen (PhD)	2017-

(Bold indicates mentor or co-mentor*)

Undergraduate:

Honors Thesis

Jessica Hensel	2007
Austin Espe	2013
Brett Johnson	2015-2016
Zach Gaarder	2016-2017
Michael Storandt	2016-2017

Interdisciplinary Studies, Senior Project

Nathan Burbach	2009-2010

Directed Studies (BMB 494)

Daniel Stanislowski	Spring 2012
Mark Hovland	Spring and Fall 2012
Evan Sprecher	Spring 2012

Directed Studies (BMB 494)cont.

Michael Gilchrist	Fall 2012
Michael Henderson	Fall 2012
Brett Johnson	Fall 2014 and Spring 2015
Benjamin Ware	Fall 2014
C. Xander Adkins	Spring, Summer and Fall 2015: Spring 2016
Katelyn Johnson	Spring, Fall 2016
Nathaniel Schroeder	Summer, Fall 2016
Wlat Khoshnaw	Summer 2017
Chris Brown	Summer and Fall, 2017
Thomas Gilchrist	Fall 2017
Jordan Evavold	Fall 2018
Luke Huff Towle	Spring 2019

Senior Research (CHEM 492)

Daniel Stanislowski	Fall 2012
Becky Horne Dunn	Spring 2013
Carter Rohling	Fall 2013
Wes Mosher	Spring 2014
Jacob Greenlees	Spring 2014
Justin Slusser	Spring 2014
Leo O'Day	Fall 2015
Connor Triplette	Fall 2015
Garret Larson	Spring 2016
Michael Storandt	Spring 2017
Chris Brown	Spring, 2017

Research Experience for Undergraduates (REU)

Ryan Hensleigh	Summer 2012
Mikal Bordeaux	Summer 2013
Darlisha Owens	Summer 2013
Gavin Nadeau	Summer 2013
Alexandra Ward	Summer 2016
Anna Hajostek	Summer 2017
Alexa Stampfli	Summer 2018
Jasmine Cano	Summer 2018

Research Experience for UND Undergraduates (REFUNDU)

Garret Skonseng	Summer 2012
Austin Espe	Summer 2013
Justin Slusser	Summer 2014

Research Experience for Medical Students (REMS)

Andrew Obritsch	Summer 2017
Michael Storandt	Summer 2017, 2018
Chris Brown	Summer 2018

UND Undergraduate Research (part-time paid or volunteer students)

Daniel Stanislowski	Spring 2013
Justin Slusser	Fall 2014 and Spring 2015
Nathanial Schroeder	Fall 2014
Benjamin Ware	Spring 2015
Michael Storandt	Summer 2016
Thomas Gilchrist	Summer 2017
Chris Brown	Summer 2017
Alexa Ward	Summer 2018
Zach Krill	Spring 2019
Hunter Duttenhefer	Spring 2019

EXTRAMURAL PROFESSIONAL ACTIVITIES

Reviewer for Grants:

Ad Hoc Reviewer: Telethon Foundation (second largest Charity in Italy), 2002; University of Chicago DRTC Pilot and Feasibility Grant Program, 2005, Austrian Science Fund (FWF), 2016; NIH Early Career Reviewer Program – 2018

Reviewer for Journals:

Editorial Advisor Board – Chemical Biology and Drug Design, 2005-2012.

Associate Editor – BMC Neuroscience, 2018 -

Review Editor – Frontiers in Microbiology – Microbial Physiology and Metabolism, 2018 –

NIH Early Career Reviewer Program — 2018

Ad Hoc Reviewer : Journal of Biological Chemistry, Biochemical Journal, FEBS Letters, Journal of Pharmacology and Experimental Therapeutics, Molecular Brain Research, Journal of Neurochemistry, Molecular Pharmacology, Journal of Chemical Neuroanatomy, ACS Chemical Biology, ACS Chemical Neuroscience, Lipids, PLOS ONE, Microsystems & Nanoengineering, Metabolism, Experimental Cell Research, ChemMedChem, Journal of Human Genetics , Life Sciences, Expert Opinion on Therapeutic Patents, Indian National Science Academy, and the Polish Journal of Food and Nutrition Sciences Quarterly

INVITED LECTURES

1. UND Department of Anatomy and Cell Biology, "Glucose-6-phosphatase: A multifunctional, Multicomponent Enzyme System" (February 1999, Grand Forks, ND)
2. UND Foundations in Biomedical Sciences, "Structure/Function Relationships and Regulation of the Glucose-6-Phosphatase System" (March 2000, Grand Forks, ND)
3. UND School of Medicine Basic Sciences Retreat, "Responses of Components of the Hepatic Glucose-6-Phosphatase System to the Glucose Demands of Ehrlich Ascites Tumors in Mice" (May 2000, Walhalla, ND)
4. Annual Meeting of the Minnesota Academy of Science, "Regulation of Dopaminergic Neurotransmission by Dopamine Transporter Phosphorylation" (April 23-24,2004, St. John's University, Collegeville MN) Note – This presentation was sponsored by the American Society of Biochemistry and Molecular Biology Undergraduate Research Network
5. UND Department of Biochemistry and Molecular Biology, " Phosphorylation and Regulation of the Dopamine Transporter" (December 2004, Grand Forks ND)
6. Minnesota State University – Moorhead, "Phosphorylation, Trafficking and Regulation of the Dopamine Transporter" (March 22, 2006, Moorhead, MN)
7. UND Department of Anatomy and Cell Biology, "Lipid Modification and Regulation of Dopamine Transporters" (April 20, 2009, Grand Forks, ND)
8. UND Osher Lifelong Learning Institute, "Neurodegeneration and Parkinson's Disease" (June 28, 2010, Grand Forks, ND)
9. ISN Satellite Conference: The Brain in Flux. "Modulation of dopamine transporter palmitoylation by palmitoyl acyltransferases" (April 26, 2013, Cancun, Mexico)
10. UND Department of Chemistry, "What's Up With DAT? Regulation of the Dopamine Transporter by Fatty Acid Acylation" (October 4, 2013, Grand Forks, ND)
11. Bemidji State University, Department of Chemistry, "What's Up With DAT? Regulation of the Dopamine Transporter by Fatty Acid Acylation" (November 22, 2013, Bemidji, MN)
12. Medical University of Vienna, "Reciprocal Phosphorylation and Palmitoylation Control Dopamine Transporter Kinetics",SFB35 7th Annual Symposium, Transmembrane Transporters in Health and Disease, (September 10, 2014, Vienna, Austria).
13. Ball State University, Department of Biology/Medical Education, "Dopaminergic Neurotransmission in Health and Disease: The Role of the Dopamine Transporter" (September 11, 2015, Muncie, Indiana)
14. International Society for Neurochemistry (ISN) satellite meeting - The Brain in Flux: Genetic, Physiologic and Therapeutic Perspectives on Transporters in the Nervous System – "Multiple Palmitoyl Acyltransferases Increase Dopamine Transporter Palmitoylation and Transport Capacity" (August 25-29, 2017, Maintenon, France.

SCIENTIFIC PUBLICATIONS

Full-Length Publications (*corresponding author)

1. **Foster, J.D.**, Nelson, K.L., Sukalski, K.A., Lucius, R.W., and Nordlie, R.C. (1991) "Hysteretic Behavior of the Hepatic Microsomal Glucose-6-phosphatase System", *Biochim. Biophys. Acta*, 1118, 91-98.
2. Robbins, B.L., **Foster, J.D.**, and Nordlie, R.C. (1991) "Metabolic Intermediates as Potential Regulators of Glucose-6-phosphatase", *Life Sciences*, 48, 1975- 1981.

Full-Length Publications (Cont.)

3. Bode, A.M., **Foster, J.D.**, and Nordlie, R.C. (1992) "Glyconeogenesis from L-Proline Involves Metabolite Inhibition of the Glucose-6-Phosphatase System", *J. Biol. Chem.*, 267, 2860-2863.
4. Bode, A.M., **Foster, J.D.**, and Nordlie, R.C. (1993) "Inhibition of Glucose-6-Phosphatase by 3-Mercaptopicolinate and Two Analogs is Metabolically Directive", *Biochem. Cell Biol.*, 71, 113-121.
5. Bode, A.M., **Foster, J.D.**, and Nordlie, R.C. (1994) "Glycogenesis from Glucose and Ureagenesis in Isolated, Perfused Rat Livers. Influences of Ammonium Ion, Norvaline, and Ethoxzolamine on Glycogenesis from Glucose and Ureagenesis in Isolated, Perfused Rat Livers", *J. Biol. Chem.*, 269, 7879-7886.
6. **Foster, J.D.**, Bode, A.M. and Nordlie, R.C. (1994) "Time-dependent Inhibition of Glucose-6-Phosphatase by 3-Mercaptopicolinic Acid", *Biochim. Biophys. Acta*, 1208, 222-228.
7. **Foster, J.D.** (1994) "Examiniation of the Putative Glucose-6-Phosphate Translocase Component, T_1, of the Glucose-6-Phosphatase System" Doctoral Dissertation.
8. **Foster, J.D.**, Pederson. B.A., and Nordlie, R.C. (1996) "Inhibition of the Glucose-6-Phosphatase System by N-Bromoacetylethanolamine Phosphate, a Potential Affinity Label for Auxilary Proteins", *Biochim. Biophys. Acta.*, 1297, 244-254.
9. Pederson, B.A., **Foster, J.D.**, and Nordlie, R.C. (1998) "Low-K_m Mannose-6-Phosphatase as a Criterion for Microsomal Intactness" *Biochem. Cell Biol.* 76, 115-124.
10. Pederson, B.A., Nordlie, M.A., **Foster, J.D.**, and Nordlie, R.C. (1998) "Effects of Ionic Strength and Chloride Ion on Activities of the Glucose-6-Phosphatase System: Regulation of Biosynthetic Activity of Glucose-6-Phosphatase by Chloride Ion Inhibition/Deinhibition", *Arch. Biochem. Biophys.* 353, 141-151.
11. **Foster, J.D.**, Young, S.E., Brandt, T.D., and Nordlie, R.C. (1998) "Inhibition of the Glucose-6-Phosphatase System by Sodium Tungstate" *Arch. Biochem. Biophys.* 354, 125-132.
12. Pederson, B.A., **Foster, J.D.**, and Nordlie, R.C. (1998) "Histone II-A Activates the Glucose-6-Phosphatase System without Microsomal Membrane Permeabilization" *Arch. Biochem. Biophys.*, 357, 173-177.
13. **Foster, J.D.**, Stevens, A.L., and Nordlie, R.C. (2000) "N-Bromoacetylethanolamine Phosphate as a Probe for the Identification of a Liver Glucose-6-phosphate Transporter Peptide in Rats and Ehrlich Ascites Tumor-Bearing Mice" *Arch. Biochem. Biophys.*, 377, 115-121.
14. **Foster, J.D**., Wiedemann, J.M., Chou, J.Y., and Nordlie, R.C. (2001) "Discriminant Responses of the Catalytic Unit and Glucose-6-phosphate Transporter Components of the Hepatic Glucose-6-PhosphataseSystem in Ehrlich Ascites-Tumor-Bearing Mice" *Arch. Biochem. Biophys.* 393, 117-122.
15. Wallert, M.A., **Foster, J.D**., Scholnick, D., Olmshank, S., Kuehn, B., and Provost, J.J. (2001) "Kinetic Analysis of Glucose-6-Phosphatase: An Investigative Approach to Carbohydrate Metabolism and Kinetics" *BAMB Ed.* 29, 199-203.
16. **Foster, J.D**., Pananusorn, B. and Vaughan. R.A. (2002) "Dopamine Transporter are Phosphorylated on N-Terminal Serines in Rat Striatum" *J. Biol. Chem.* 277, 25178-25186.
17. **Foster, J.D.**, Pananusorn, B, Cervinksi, M, Holden, H.E. and Vaughan, R.A. (2003) Dopamine Transporters are Dephosphorylated in Striatal Homogenates and *In Vitro* by Protein Phosphatase 1. *Mol. Brain Res.* 110, 100-108.

Full-Length Publications (Cont.)

18. Cervinski, M., **Foster, J.D.**, and Vaughan, R.A. (2005) "Psychoactive SubstratesStimulate Dopamine Transporter Phosphorylation and Down Regulation by Cocaine Sensitive and Protein Kinase C Dependent Mechanisms" *J. Biol. Chem.* 280: 40442-40449.
19. Vaughan, R.A., Sakrikar, D., Parnas, M.L., Adkins, S.D., **Foster, J.D.**, Lever, J.R., Kulkarni, S., and Newman, A.H. (2007) "Localization of Cocaine Analog [^{125}I]RTI 82 Irreversible binding to Transmembrane Domain Six of the Dopamine Transporter" *J. Biol. Chem.* 282, 8915-8925..
20. **Foster, J.D.**, Adkins, S.D., Lever, J.R. and Vaughan, R.A. (2008) "Phorbol Ester Induced Trafficking-Independent Regulation and Enhanced Phosphorylation of the Dopamine Transporter Associated with Membrane Rafts and Cholesterol" *J Neurochem.* 105, 1683-1699.
21. Gorentla, B.K., Moritz, A.E., **Foster, J.D**., Vaughan, R.A. (2009) "Proline-Directed Phosphorylation of the Dopamine Transporter N-Terminal Domain" *Biochemistry* 48, 1067-76.
22. Lapinsky, D.J., Aggarwal, S., Huang, Y., Surratt, C.K., Lever, J.R., **Foster, J.D.** and Vaughan R.A. (2009) "A novel photoaffinity ligand for the dopamine transporter based on pyrovalerone" *Bioorganic & Medicinal Chemistry* 17, 3770-3774.
23. Cervinski, M.A., **Foster, J.D.**, and Vaughan, R.A. (2010) "Syntaxin 1A regulates dopamine transporter activity, phosphorylation and surface expression" *Neuroscience* 170, 408-416.
24. **Foster, J.D.,** and Vaughan, R.A (2011) "Palmitoylation Controls Dopamine Transporter Kinetics, Degradation, and Protein Kinase C Dependent Regulation" *J. Biol. Chem.* 286, 5175-5186.
25. Lapinsky, D.J., Velagaleti, R., Yarravarapu, N., Liu,Y., Huang, H., Surratt, C.K., Lever, J.R., **Foster,J.D.,** Acharya, R., Vaughan, R.A., and Deutsch, H.M. (2011) "Azido-Iodo-*N*-Benzyl Derivatives of Methylphenidate (Ritalin, Concerta): Rational Design, Synthesis, Pharmacological Evaluation and Dopamine Transporter Photoaffinity Labeling" *Bioorganic & Medicinal Chemistry* 19, 504-512.
26. **Foster, J.D.**, Yang, JW, Moritz, A.E., Challa, S., Smith, M., Holy, M., Wilebski, K., Sitte, H.H., and Vaughan, R.A. (2012) "Dopamine transporter phosphorylation site threonine 53 regulates substrate reuptake and amphetamine-stimulated efflux" *J Biol Chem* 287, 29702-29712.
27. Moritz, A.E., **Foster, J.D**., Yang, JW, Gorentla, B.K., Mazei-Robinson, M. Blakely, R.D., Sitte, H.H. and Vaughan, R.A. (2013) "Phosphorylation of Dopamine Transporter Serine 7 Modulates Cocaine Analog Binding" *J Biol Chem* 288, 20-32.
28. Gaffaney, J.D., Shetty, M., Felts, B., Pramod, A.B., **Foster, J.D**., Henry, L.K., Vaughan, R.A. (2013) Antagonist-Induced Conformational Changes in Dopamine Transporter Extracellular Loop Two Involve Residues in a potential Salt Bridge" *Neurochem Int* 73, 16-26.
29. Dahal, R.A., Pramod, A.B., Sharma, B., **Foster, J.D.**, Pinsonneault, D., Chan, J.H., Newman, A.M., Lever, J.R., Vaughan, R.A., and Henry, L.K. (2014) "Computational and Biochemical Mapping of the Irreversible Cocaine Analog [^{125}I]RTI 82 Binding Site on the Dopamine Transporter Supports a Competitive Mechanism for Transport Inhibition" *J. Biol. Chem.* 289, 29712-29727.

    (**Featured cover art for this issue and work highlighted in ASBMB today**)
30. Moritz, A.E., Rastedt, D.E., Stanislowski, D.J., Shetty, M., Smith, M.A., **Foster, J.D**., Vaughan, R.A. (2015) Reciprocal Phosphorylation and Palmitoylation Control Dopamine Transporter Kinetics. *J Biol Chem*, 290, 29095-29105.

Full-Length Publications (Cont.)

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