CURRICULUM VITAE

Thomas B. Kuhn

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EDUCATION AND RESEARCH

University of Zurich (Switzerland), Biochemistry Institute
1981-1985 Study of Biochemistry
1985-1986 Diploma thesis in Biochemistry (Advisor: Dr. P. Sonderegger)
1986-1991 Ph.D. in Biochemistry and Neurobiology (Advisor: Dr. P. Sonderegger)
1991-1992 Postdoctoral Fellow (Dr. Peter Sonderegger)
Colorado State University, Department of Anatomy and Neurobiology
1992-1995 Postdoctoral Fellow (Dr. S.B. Kater), Program in Neuronal Growth and Development
Colorado State University, Department of Biochemistry and Molecular Biology
1996-1998 Research Assistant Professor (Dr. J.R. Bamburg),
Molecular, Cellular, and Integrative Neurosciences Program
University of Alaska Fairbanks, Institute of Arctic Biology and Department of Biology and Wildlife
1998-2001 Assistant Professor of Biochemistry and Neurobiology
The University of Montana, Department of Pharmaceutical Sciences
2002-2004 Assistant Professor of Neuropharmacology
University of Alaska Fairbanks, Department of Chemistry and Biochemistry
2004-present Assistant Professor

PROFESSIONAL ACTVITIES

Research Funding

1992-1993 Swiss National Foundation (Postdoctoral Fellowship)
1993-1994 Swiss National Foundation (Postdoctoral Fellowship)
1996-1998 Spinal Cord Research Foundation (Paralyzed Veterans of America)
1999-2002 NIDCD (R03)
1999-2000 President's Special Project Funds (University of Alaska)
2000 Technology Advisory Board Grant (Imaging Workstation)
2000-2002 Christopher Reeve Paralysis Foundation
2000-2005 Special Neuroscience Research Program (NINDS/NIMH/NCRR)
2002-2003 Subproject PI, COBRE Center University of Montana School of Pharmacy
2005 Access Grid Node fundingn through Graduate School UAF
2005 TAB grant for Access grid node development
2005-2007 USDA grant Alaska Berries (Subproject Co-PI)
2006-2007 INBRE graduate student research fellowship
2006-2010 Special Neuroscience Research Program (NINDS/NIH, Optical Core)
2006-2007 UAF Graduate School – Research fellowship
2006-2008 USDA grant Alaska Berries (Subproject PI)
2007 TAB grant for Access Grid Node Establishment
2008-2010 USDA grant Alaska Berries (Project–PI)
pending NSF (3y) Oxidative Modulation of Actin Filament Dynamics in Neuronal Growth Cones
AHA (2y) Neuroprotective Mechanisms of Non-polar Compounds in Alaskan Blueberries against Inflammatory Damage
in preparation NIH (R01) – Neuronal NADPH oxidase: a key role in neurodegeneration (PI)

NIH (R01) – Cellular Mechanisms of Neuroprotection by Blueberries (Co-PI with Dr. Joseph)

Collaborations

Dr. J. R. Bamburg (Colorado State University) – Actin Dynamics in Neuronal Growth Cones
Dr. P. C. Letourneau (University of Minnesota) – Growth Cone Pathfinding, Cytoskeleton
Dr. C. M. Thompson (University of Montana) – Proteomics
Dr. R. Bridges (University of Montana) – Program Building
Dr. D. Poulsen (University of Montana) – Viral Gene Expression and siRNA
Dr. M. Grimes (University of Montana) – Membrane Rafts
Dr. F.J. Crews (University of North Carolina, Chapel Hill) – Neuronal NADPH Oxidase
Dr. J. Joseph (Tufts University, Boston) – Blueberry Neuroprotection
Dr. L. K. Duffy (UAF) – Environmental Toxicology
Dr. T. P. Clausen (UAF) – Natura Products
Dr. M.K. Schulte (UAF) - Biochemistry

Services

2004-present	Acting Coordinator, Graduate Program in Biochemistry and Molecular Biology
2004	Established Neuroscience Curriculum at UAF in collaboration with UM
1999-present	President, Alaska Chapter of the Society for Neuroscience – Organization of Grass Lecture
1999-present	Ad hoc reviewer for several journals and funding agencies
2004-present	Faculty Senate Elect
2004-present	Director – Optical Core and Tissue Culture Facility
2005	UA Biomedical Research Conference (Inauguration, Organization)
2007	UA Biomedical Research Conference (Organization)
1999	Search Committee Member -Integrative Physiology, Molecular Geneticist, Neuroscientist
2005-06	Search Committee Member– Analytical chemistry
2006-07	Search Committee Chair - Biochemistry

Memberships

Society for Neuroscience
American Society for Biochemistry and Molecular Biology
American Aging Association

SCHOLARLY ACTIVITES

Graduate Student Committee Chair

2000-2002	Shelli Stewart (MS 2002)
2000-2003	Catherine Humphries (MS 2003)
2005-2007	Sayali Kulkarni (MS 2007, Chair)
2005-2007	Njideka Chukwu (MS reasssinged to MA under M. Castillo)
2004-present	Max Kullber (Ph.D.)
2005-present	Brian Barth (PhD)

Undergraduate Research

1999	Perry Kurshan (Brown University)
1999	Catherine Humphries (UAF)
2000-2002	Renee Parsley (UAF)
2002	Kristin Rogers (Helena, High School, MT)
2004	Laura Johnson (UAF)
2002	Jeff Levine (University of Montana)
2004-06	Adam Fairchild (UAF with Dr. Hong)
2005	Adam Baxter (UAF)
2006	Sally Brown (UAF), Irina Mueller (UAF), Danielle LaVictoire
2007	Joseph Wenzel (UAF)
2008	Shane Rideout (UAF), Armin Gollogely, Loren Schmidt (Whiteman College)

Committee member: 16 Masters Students
11 Ph.D. Student

Research Professionals

Technicians (Diane Cabrie)
Imaging Specialist (John Pender)
Senior Researchers (Mark Wrigth, Kelly Auer, Kriya Dunlap)

Current Research Group

1 Research Professional
2 Graduate Students (1 MS, 1 PhD)
1 Undergraduate Student

Former Lab Associates

Catherine Humphries, MS (2003 UAF), now AK State Virology Laboratory, Technician
Shelli Stewart, MS (2002, UAF), now Pfizer Pharmaceuticals, Technician
Mark V. Wright, Research Associate (1999-2002 UAF) now Biology Laboratory Coordinator - UAF
Kelly L. Auer, Research Associate (2000-2002 UAF) now licensed Attorney (Patent law, Bioethics)
Dianne Cabrie Technician (2000-2003 UAF and UM) now Research Assistant Monash University, AUS
John Pender, Imaging Specialist (2000-present UAF) now Independently Employed
Sayali Kulkarni (2005-2007, MS, UAF) Research Scientist, XOMA Berkely CA
Brian Barth (2005-2008, PhD, UAF) Postdoctoral Researcher, Dept. of Pharmacology, Hershey Medical Center

Service

2000-2002	Biosafety Committee (UAF)
2000-2002	Life Science Space Advisory Committee (UAF)
1999-2002	Comprehensive Exam Committee (UAF, member and Chair)
2000-2002	Teaching Advisory Committee (UAF)
2005-present	Pre-Pharamcy Advisor and Pre-pharmacy curricululm development
2005-present	UA Pharmacy School - Initiative and Program Development
2007	AK High School Student Research Mentor
2007	AK statewide High School Science Symposium (Judge)
2004-present	Co-Director, Graduate program in Biochemistry and Molecular Biology

Revision undergraduate curriculum (2 semster sequence – Metabolism. Macromolecules)
Revision graduate curriculum
3 core course – Protein Structure, Gene Expression, Biomembranes
Neuroscience Emphasis for MS and PhD
Revision of Comprehensive PhD Examination
Student Guidelines of Conduct
Revision of Graduate Student Admission

TEACHING EXPERIENCE

University of Zurich (Switzerland), Biochemistry Institute,
Biochemistry courses and laboratory (undergraduate and medical students)
Colorado State University, Department of Anatomy/Neurobiology (lecturer)
Developmental Neurobiology (graduate students)
Colorado State University, Department of Biochemistry and Molecular Biology
Neuroscience Techniques (graduate students)
Cell Biology (graduate students)
University of Alaska Fairbanks, Institute of Arctic Biology and Department of Wildlife and Biology
Developmental Biology (undergraduate students)
Cell Biology (undergraduate/graduate students)
Immunology (undergraduate/graduate students)
University of Montana
Pharmacy Laboratory (undergraduate students)
Advanced Cellular Biochemistry (Graduate Students)
Univeristy of Alaska Fairbanks (2004-present)
Chemistry 456/656 (undergraduate/graduate students)
Chemistry 103X (undergraduate students)
Phar 600 Advanced Cellular Biochemistry (4 invited lectures via Access Grid Node)

Phar 661 Neuroscience I (joint course via Access Grid Node, 3 invited lectures)
Chem 451 Biochemistry of Metabolism
Chem 450 Biochemistry of Macromolecules
Chem 452 Biochemistry Laboratory
Chem 493/693 Special topics course
Chem 497/697 Independent Study
Chem 470/670 Cellular and Molecular Neuroscience
Chem 472/672 Systems Neuroscience
Chem 657 Molecular foundations of Gene Expression

HONORS

1996-1998	Research Assistant Professor, Colorado State University
2000	Outstanding Advisor Award
2000-2002	Advisory Committee, “The Imaginarium Science Caravan”, Science Outreach Program
2001-2006	Editorial Board of the Journal of Biological Chemistry
2002	Nominatation to “Who is Who among America’s Teachers”
2002-2004	Vice President, Neuroscience Section, Montana Academie of Science
2004-present	Editor, Science Publications
2004-present	Faculty Affiliate University of Montana
2005-present	Editorial Board Developmental Neuroscience
2007	Outstanding Faculty Advisory Award
2007	Invited Speaker – Australian Spinal Cord Society (Melbourne)
2008	Invited Speaker – Tufts University Medical Center (Boston)
2007/8	Panel Organizer, Winter Conference on Brain Research
2008-present	Editorial Board, Journal of Biological Chemistry

Publications

Kuhn TB (2008) Proinflammatory Cytokines Impair Neurite Outgrowth of Spinal Cord Neurons through a Rac1-Dependent Generation of Reactive Oxygen Species. Journal of Neurochemistry (*submitted*)

Barth BM, Stewart-Smeets S, Wrigth MV, Gustafson SJ, LaVictoire DL, and **Kuhn TB** (2008) Neuronal NADPH oxidase mediates irreversible oxidative damage to actin in response to the proinflammatory cytokines TNFα. Journal of Biological Chemistry (*in revision*).

Barth BM, and **Kuhn TB** (2008) Inhibtion of NADPh oxidase by glucosylceramide confers chemoresistance to glioblastoma cells. Neuro-Oncology (*in revision*).

Kuhn TB, Bamburg JR (2007) Tropomyosin and ADF/cofilin as collaborators and competitors. (2007) Landes Bioscience Ed. Peter Gunning. (in press)

Gustafson SJ, Barth BM, McGill CM, Clausen TP, **Kuhn TB** (2007) Wild Alaskan blueberry extracts inhibit a magnesium-dependent neutral sphingomyelinase activity in neurons exposed to TNFα. Current Topics in Nutraceutical Research 5(4):183-188.

Shi B, **Kuhn TB**, Liang H, Duffy LK (2007) Tribochemical performance of cell-treated nickel matrix. Am. J. Biochem Biotech 3(3):141-144

Duffy L, Bult-Ito A, Castillo M, Drew K, Harris M, **Kuhn TB** , Ma Y, Schulte M and Taylor B (2007) Arctic Peoples and Beyond: Research Opportunities in Neuroscience and Behavior. J Circumpolar Health 66(3):264-275

Shi B, Liang H, **Kuhn TB**, Duffy LK (2006) Surface properties of cell-treated polyethylene-terephtalate. Am. J. Biochem Biotech 2(4):170-174.

Ribeiro R, Ingole S, Asthana P, Shi B, **Kuhn TB**, and Liang H (2005) Biocomposites: Exploring surface texture for cell adhesion. J ASTM Int 2(8):1-6.

Shi B, Fairchild A, Kleine Z, **Kuhn TB**, Liang H (2004) Effects of surface texturing on cell adhesion for artificial joints. MRS Proceedings (in press).

Kuhn TB (2003) Growing and working with spinal motor neurons. **Methods Cell Biol** 71:67-87.

Wright MV, **Kuhn TB** (2002) CNS neurons express two distinct plasma membrane electron transport systems implicated in neuronal viability. **Journal of Neurochemistry** 83 (3):655-664.

Drew KL, Rice ME, Zhu X, **Kuhn TB**, Smith MA (2001) Neuroprotective adaptions in hibernation: therapeutic implications for ischemia-reperfusion, traumatic brain injury and neurodegenerative diseases. **Free Radicals Med Biol** 31(5):563-573

Kuhn TB, Meberg PJ, Brown MD, Bernstein BW, Minamide LS, Jensen JR, Okada K, Soda EA, and Bamburg JR (2000) Regulating actin dynamics in neuronal growth cones by rho family GTPases and ADF/cofilin. **J Neurobiol** 44:126-144

Brown MD, Cornejo BJ, **Kuhn TB,** and Bamburg JR (2000) Cdc42 stimulates neurite outgrowth and formation of growth cone filopodia and lamellipodia. **J Neurobiol** 43:352-364

Kuhn TB, Brown MD, Wilcox CL, Raper JA, and Bamburg JR (1999) Myelin and collapsin-1 induce motor neuron growth cone collapse through different pathways: inhibition of collapse by opposing mutants of rac1. **J Neurosci** 19:1965-1975

Kuhn TB, Brown MD, and Bamburg JR (1998) Rac1-dependent actin filament organization in growth cones is necessary for □1 integrin-mediated advance but not for growth on poly-D-lysine. **J Neurobiol** 37:524-540

Kuhn TB, Williams CV, Dou P, and Kater SB (1998) Laminin directs growth cone navigation via two temporally and functionally distinct Ca^{2+} signals. **J Neurosci** 18:184-194

Kuhn TB, and Bamburg JR (1996) Mimicking the growth promoting effects of laminin as a tool to achieve axon regeneration in an inhibitory environment. **Paraplegia News**

Osterwalder T, Contartese J, Stoeckli ET, **Kuhn TB**, and Sonderegger P (1996) Neuroserpin, an axonally secreted serine protease inhibitor. **EMBO J** 15(12):2944-2953

Kuhn TB, Schmidt MF, and Kater SB (1995) Laminin and fibronectin signal sustained but opposite effects to passing growth cones. **Neuron** 14: 1-20

Kuhn TB, and Kater SB (1993) The use of LazerTweezers for the study of neuronal pathfinding. **J NIH Research Magazine** 5: 77-78

Kuhn TB, Stoeckli ET, Condrau MA, Rathjen FG, and Sonderegger P (1991) Neurite outgrowth on immobilized axonin-1 is mediated by a heterophilic interaction with L1(G4). **J Cell Biol** 114: 1113-1126

Kuhn TB, Stoeckli ET, Condrau MA, Rathjen FG, and Sonderegger P (1991) Molecular analysis of neurite outgrowth on axonin-1. **Biol Chem Hoppe-Seyler** 372: 885-913

Kuhn TB, Stoeckli ET, and Sonderegger P (1991) Interaction of the axonally secreted protein axonin-1 with neurons and glia. **Swiss archives of neurology and psychiatry** 142 (2): 114-116

Stoeckli ET, **Kuhn TB**, Duc CO, Ruegg MA, and Sonderegger P (1991) The axonally secreted protein axonin-1 is a potent substratum for neurite outgrowth. **J Cell Biol** 112: 449-455

Stoeckli ET, Lemkin PF, **Kuhn TB**, Ruegg MA, and Sonderegger P (1989) Identification of proteins secreted from axons of embryonic dorsal root ganglia neurons. **Eur J Biochem** 180: 249-258

Ruegg MA, Stoeckli ET, **Kuhn TB**, Heller M, and Sonderegger P (1989) Purification of axonin-1, a protein that is secreted from axons during neurogenesis. **EMBO J** 8:55-63

Future Manuscript:

These manuscripts are in their final stage of preparation and submission planned for November 2008.

Barth BM, Gustafson SJ, and **Kuhn TB** (2008) Ceramide kinase regulates TNFa-induced NADPH oxidase activity and eicosanoid biosynthesis in neurons. J of Neurochemistry

Barth BM, Gustafson SJ, LaVictorie DL, and **Kuhn TB** (2008) TNFα and Aβ induce ceramide accumlation and concurrent loss of sphingosine-1-phosphate in neurons. Free Radicals in Medicine and Biology

Invited Presentations

Tufts University Medical Center and USDA Jean Mayer Human Nutrition Research Center on Aging (2008) Blueberries

Winter Conference on Brain Research (Snowbird, UT, 2008) Panel Organization: Polyphenols and Polyunsaturated Fatty Acids: the Pollyannas of brain neurodegeneration.

Australian Spinal Cord Societry (Melbourne, AUS, 2007) Treatments of chronic spinal cord injury.

Mini Medical School – WWAMI (Fairbanks, AK, 2006) Spinal cord injury treatment,

4th Annual SNRP conference (Nashville, TN, 2004) Oxygen radicals mediate growth cone collapse in response to cytokines and semaphorin3A.

Montana Academie of Science (Missoula, MT, 2003) Oxidative modifiation of the neuronal actin cytoskeleton.

University of Kentucky (Lexington, KY, 2003) Small GTPases, oxygen radicals, and neuronal regeneration.

Roche Pharmaceuticals (Zurich, Switzerland, 2003) Oxidative stress and neurodegeneration: a key role of the small GTPase Rac1.

University of Basel, Biozentrum (Basel, Switzerland, 2003) Small GTPases, oxygen radicals, and neuronal regeneration.

Neurosurgery Symposium (Chico Hot Springs, MT, 2002) Neuronal regeneration and oxygen radicals.

Winter Conference on Brain Research (Snowmass, CO, 2002) Panel Organization: Rho GTPases in neuronal development and plasticity. “Rac1, oxygen radicals, and neuronal regeneration”

University of Montana (Missoula, USA, 2001) Oxidatiev stress and neurodegeneration: a key role of the small GTPase Rac1.

University of Montana (Missoula, USA, 2001) Small GTPases, oxygen radicals, and neuronal regeneration.

Abstracts

Kuhn, TB, Joseph JA, Sweeny M, VanPraag, H (2008) Polyphenols and Polyunsaturated Fatty Acids: the Pollyannas of brain neurodegeneration. (Panel 41th Winter Conference on Brain Research).

Kuhn TB, Barth BM, McGill CM, Clausen TP, Gustafson SJ, (2007) Compounds in Wild Alaskan bog blueberries abolish neurtral sphinogmyelinase activation by TNFα in neuronal cells. 37th Annual Meeting of the Society for Neuroscience (in press).

Kulkarni S, Kusina J, Schulte MK, **Kuhn TB** (2007) Determination of kinetic parameters of actin polymerization using surface plasmon resonance technology. 47th annual meeting of the American Society for Cell Biology

Brown SJ, Barth BM, McGill CM, Clausen TP, **Kuhn TB** (2007) Components of Wild Alaskan Bog Blueberries inhibit neutral sphingomyelinase-mediated neuroinflammation. 4th Charleston Ceramide Conference.

Stewart S, Barth BM, LaVictoire DL, Carbie D, **Kuhn TB** (2007) TNFa impairs growth cone motility by a rac1-mediated oxidative damage to the neuronal cytoskeleton. 40th Winter Conference on Brain Research.

McGill CM, Barth BM, Brown SJ, **Kuhn TB**, Clausen TP (2006) Wild Alaskan bog blueberries contain an sphinogmyelinase-inhibiting component that protects against neuroinflammation. AAAS meeting (in press).

Barth BM, Kirschner DL, **Kuhn TB**, Green TK (2006) Cyclodextrin-mediated chiral separation of sphingolipids and high resolution detection of capillary electrophoresis. AAAS meeting (in press).

Barth BM, LaVictoire DL, Brown SJ, McGill CM, Clausen TP, **Kuhn TB** (2006) Ceramide mediates amyloid-β and TNFα-induced NADPH oxidase activation and subsequent oxidation of the neuronal actin cytoskeleton. International Society for Neurochemistry – Neural Glycolipid Conference (in press).

Barth BM, LaVictoire DL, **Kuhn TB** (2006) Ceramides mediates amyloid-β and TNFα-induced NAD(P)H oxidase activation and consequential oxidation of the neuronal actin cytoskeleton. FEBS Lipidomics Conference. 36th Annual Meeting of the Society for Neuroscience (in press)

Barth BM, LaVictoire DL, Brown SJ, McGill CM, Clausen TP, **Kuhn TB** (2006) Ceramides mediates amyloid-β and TNFα-induced NADPH oxidase activation and subsequent oxidation of the neuronal actin cytoskeleton. FEBS Lipidomics Conference (in press).

Barth BM, Baxter AW, **Kuhn TB** (2006) TNFα and ceramide impede cellular motility by inducing oxidative damage to the cellular actin cytoskeleton. 6th Annual Conference of SNRPs.

Kulkarni SD, Kusina JF, Schulte MK, **Kuhn TB** (2206) Effect of oxidative stress on actin cytoskeleton. 6th Annual Conference of SNRPs.

Barth BM, **Kuhn TB** (2006) Ceramide and TNFα inhibit neurite outgrowth by mediation of the actin cytoskeleton. Gordon Research Conference.

Shi B, **Kuhn TB**, Duffy KL, and Liang H (2005) TRIBOCHEMICAL PERFORMANCE OF CELL-TREATED NICKEL MATRIX. Proceedings of World Tribology Congress III

Shi B, Fairchild A, Kleine Z, **Kuhn TB**, Liang H (2004) Effects of surface texturing on cell adhesion for artificial joints. MRS Proceedings (in press).

Kuhn TB, Liang H (2004) Synthesis of biomaterials. TEX-MEMS workshop (in press).

Shi B, Fairchild A, Kleine Z, **Kuhn TB**, Liang H (2004) Effects of surface texturing on cell adhesion for artificial joints. ASME/STLE Tribology Conference.

Kleine Z, Fairchild A, Shi B, **Kuhn TB**, Liang H (2003) Cell adhesion in biomaterials – an introduction. 58th STLE annual meeting.

Kuhn TB, Roche C, and Letourneau RC (2003) Reactive oxygen species mediated Semaphrin 3A-induced growth cones collapse. Soc. Neurosci. Abstr.

Shi B, Kleine Z, Liang H, and **Kuhn TB** (2003) Synthesis and Tribological Performance of biomaterials for artificial joints. Society for Tribologists and Lubrication Engineers

Stewart S, **Kuhn TB** (2002) Proinflammatory Cytokines Stimulate Cytoskeletal Actin Filament Reorganization in SH-SY5Y Neuroblastoma Cells. Experimental Biology

Humphries CM, Auer KL, Kurshan P, **Kuhn TB** (2001) Testosterone attenuates apoptosis of stem cell progenitors in a forebrain vocal control region. Mol Biol Cell Suppl. 12

Kleine Z, Shi B, Liang H, and **Kuhn TB** (2001) Effects of Surface Properties of Conventional Materials on Cell Adhesion

Parsely R, Wright MV, **Kuhn TB** (2001) Characterization of plasma membrane pro-oxidant and antioxidant enzymatic redox systems of chick cortical neurons. Soc. Neurosci. Abstr

Humphries CM, Auer KL, Kurshan P, and **Kuhn TB** (2000) Testosterone attenuates apoptosis of stem cell progenitors in a forebrain vocal control region of adult songbirds. Mol Biol Cell Suppl. 11.

Wright MV, and **Kuhn TB** (2000) Rac1A mediates the production of reactive oxygen species in motor neurons in response to proinflammatory cytokines. Mol Biol Cell Suppl. 11.

Wright MV, and **Kuhn TB** (2000) Identification of a rac1-regulated plasma membrane NADH-oxidoreductase in chick CNS neurons. Soc. Neurosci. Abstr. Vol. 26 (II).

Brown MD, **Kuhn TB**, and Bamburg JR (1999) Activation of CDC42 mimics the effect of soluble laminin on growth cone morphology and neurite outgrowth. Mol Biol Cell Suppl. 10

Richardson CF, Drew KL, and **Kuhn TB** (1999) Reduced Ca^{2+} changes in response to depolarizing stimuli in neurons during hibernation in arctic ground squirrles. Soc. Neurosci. Abstr. Vol 25(II)

Kuhn TB, Wilcox CL, Raper JA, and Bamburg JR (1998) Opposing mutants of rac1 inhibit motor neuron growth cone collapse induced by myelin or collapsin-1. Mol Biol Cell Suppl. 9, 142a

Wees EA, McNamara RK, Meberg PJ, **Kuhn TB,** and Lenox RH (1998) The PKC substrate MARCKS is enriched in neuronal growth cones and developmentally regulated in the rat hippocampus. Soc. Neurosci. Abstr. Vol 24(I): 537

Kuhn TB, Todisco S, and Bamburg JR (1997) The small GTPase Rac1 is involved in myelin-dependent growth cone collapse. Am Soc Cell Biol 37th Annual Meeting , H76

Kuhn TB, Wilcox CL, and Bamburg JR (1997) Rac, a small GTPase, alters F-actin organization in motor neuron growth cones regulating both extension and differentiation of neurites. Soc. Neurosci. Abstr. Vol 23 (I): 630

Kuhn TB, and Bamburg JR (1996) The small GTPase Rac is essential for the formation and differentiation of neurites from motorneurons mediated by extracellular matrix molecules. Mol Cell Biol Suppl. 7, 130a

Kuhn TB, Williams CV, Dou P, and Kater SB (1996) Dual function of calcium in laminin-mediated growth cone guidance. Winter Conference on Brain Research

Kuhn TB, Williams CV, Dou P, and Kater SB (1995). Dual function of calcium in laminin-mediated growth cone guidance: II. Late, sustained Ca^{2+}-signal in growth cones long after transient contact is associated with enhanced outgrowth. Soc. Neurosci. Abstr.Vol 21: 594.4

Williams CV, **Kuhn TB**, Dou P, and Kater SB (1995) Dual function of calcium in laminin-mediated growth cone guidance: I. Early Ca^{2+}-signal in filopodia underlies growth cone turning. Soc. Neurosci. Abstr. Vol 21: 594.3

Kater SB, **Kuhn TB**, Shibata A, Wright MV, Williams CV (1995) A single second messenger can serve opposing roles in growth cone regulation. IBRO World Congress of Neuroscience

Kuhn TB, Schmidt MF, and Kater SB (1994) Laminin and fibronectin signal sustained but opposite effects to passing growth cones. Soc. Neuorsci. Abstr. Vol. 20: 1295

Kuhn TB, Schmidt MF, and Kater SB (1994) Model guideposts direct growth cone pathfinding by activating second messenger. Experientia 50: A15

Kuhn TB, Stoeckli ET, Condrau MA, Rathjen FG, and Sonderegger P (1991) Neurite outgrowth on immobilized axonin-1 is mediated by a heterophilic interaction. Soc. Neurosci. Abstr. Vol. 17: 910

Suter D, Stoeckli ET, **Kuhn TB**, and Sonderegger P (1991) Axonin-1, an axonally secreted glycoprotein: effects on nonneuronal cells of the peripheral and the central nervous system. IBRO World Congress of Neuroscience: p.87

Stoeckli ET, **Kuhn TB**, Duc CO, and Sonderegger P (1990) The axonally secreted protein axonin-1 is a potent substratum for neurite outgrowth. Experientia 46: A7

Stoeckli ET, Streit P, **Kuhn TB**, Ruegg MA, and Sonderegger P (1989) A membrane-associated homologue of the axonally secreted protein axonin-1: I. Immunohistochemical localization in developing nerve fibre tracts. Experientia 45: A44

Ruegg MA, Stoeckli ET, Lanz RB, Zuellig R, Streit P, **Kuhn TB**, and Sonderegger P (1989) A membrane-associated homologue of the axonally secreted protein axonin-1: II. Characterization as a novel cell adhesion molecule involved in neurite fasciculation. Experientia 45: A44

Lanz RB, Ruegg MA, Stoeckli ET, Zuellig R, **Kuhn TB**, and Sonderegger P (1989) A membrane-associated homologue of the axonally secreted protein axonin-1: III. Qualification as an integral membrane protein and characterization of its structural relationship to secreted axonin-1. Experientia 45: A44

Stoeckli ET, **Kuhn TB**, Ruegg MA, Heller M, and Sonderegger P (1987) Axonally secreted proteins I: Identification. Experientia 43: 658

Ruegg MA, Stoeckli ET, **Kuhn TB**, Heller M, and Sonderegger P (1987) Axonally secreted proteins II: Purification of ASP-140 and determination of neurons as target cells. Experientia 43: 657

Stoeckli ET, Lemkin PF, **Kuhn TB**, Ruegg MA, and Sonderegger P (1987) Axonally secreted proteins I: Identification of two secreted proteins by axons of embryonic chicken dorsal root ganglia neurons. Neuroscience Suppl. 22: S593

Ruegg MA, Stoeckli ET, Streit P, **Kuhn TB**, Heller M, and Sonderegger P (1987) Axonally secreted proteins II: Purification of an axonally secreted protein (ASP-140) and demonstration of its occurence in the extracellular matrix between neuronal elements. Neuroscience Suppl. 22: S593

Sonderegger P, Stoeckli ET, Ruegg MA, Lemkin PF, Streit P, **Kuhn TB**, and Heller M (1987) Identification and purification of an axonally secreted protein that is deposited on the surface of neuronal somas and processes. Soc. Neurosci. Abstr. Vol. 13: 1227