1. Personal Data

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Associate Professor in Medicine
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2. Education

1972 BS University of Madras, India
1975 MS University of Madras, India
1986 PhD University of Delhi, India

3. Post Doctoral training

1988-1990 Post Doctoral Fellow, University of Saskatchewan, Saskatoon, SK, Canada
1991-1997 Research Associate, University of Saskatchewan, Saskatoon, SK, Canada
1997-2001 Senior Post Doctoral Fellow, Department of Medicine, University of Colorado

4. Academic appointments

1976-1980 Demonstrator in Biochemistry, University College of Medical Sciences, Delhi, India
1981-1988 Lecturer in Biochemistry, University College of Medical Sciences, Delhi, India
2001 Instructor in Medicine, Endocrine Div., Univ. Colorado Denver School of Medicine
2002-2008 Assistant Professor in Medicine, Endocrine Div., Univ. Colorado Denver School of Medicine
2008-Present Associate Professor in Medicine, Endocrine Div., Univ. Colorado Denver School of Medicine
2008-Present VA Merit Investigator, Denver VAMC - Eastern Colorado Healthcare System

5. Honors and Awards

1968 First in High School (Ariyalur, TN, India)
1991-1995 Research Associate Award, Medical Research Council of Canada
2001: American Diabetes Association-Innovation Award
2002 Young Investigator Award at Rachmiel Levine Diabetes and obesity Symposium
2005 Juvenile Diabetes Research Foundation-Innovation Award
2006 American Diabetes Association-Junior Faculty Award
2008 Veterans Administration Merit Review Award
2013 Veterans Administration Merit Review Award
2019 Veterans Administration Merit Review Award

6. Professional Affiliations and membership in scientific Societies

Society for Neuroscience

American Diabetes Association
Endocrine Society
Society for Free Radicals in Biology and medicine
Society for Biological Chemists of India
Canadian Biological Society

7. Major Committee and Service Responsibilities

2002-2007: Member of Subcommittee on Research Safety, Denver VA Medical Center

2005-Present: Member of IACUC Committee, Denver VA Medical Center

2006: Organized Poster judging for Rocky Mountain Region Neuroscience Group Meeting, Aurora, CO

2005: Participation in Health Fair organized by Colorado Asian Health Education and Promotion (CAHEP)

2006: Involvement with the activities of local branch of American Diabetes Association; Diabetes Expo and the event organized by at Barbara Davis Center for donors and patients.

2007: Member of Research working group in the Division of Endocrinology, DOM, Anschutz Medical Campus.

2010-2012: Member of Faculty Senate, University of Colorado, Anschutz Medical Campus

8. Review and Referee Service

2005-2009: Reviewer for Alzheimer's Association grants
and 2016
2011: Reviewer for Israel Science Foundation-Juvenile Diabetes Research Foundation Joint Program in Type 1 Diabetes Research
2013: Reviewer for American Diabetes Association grants
2015: Reviewer for NIH-RFA Study Section "Immune and Inflammatory Mechanisms in Alzheimer's Disease".
2018: Reviewed grant applications as a member of Texas Alzheimer's Research and Care Consortium (TARCC) Scientific review Panel.
2019 (Nov 14-15): Invitation to be a Reviewer for NIH study section: Small Business panel on Drug Discovery for Aging, Neuropsychiatric and Neurologic Disorders (ZRG1 ETTN-H).

Reviewer for the following Journals:

Journal of Biological Chemistry
Diabetes
Scientific Reports
Journal Alzheimer's Research
Journal of Neurochemistry
Molecular Endocrinology
PLoS One
Neurobiology of Disease
BBA
Frontiers in Aging
Neurobiology of Diseases
Molecular and Cellular Endocrinology
International Journal of Biochemistry and Cell Biology
Molecular and Cellular Biochemistry

European Journal of Pharmacology
Brain Research

Editorship:

***** 2012: Co-editor of a Special Issue entitled "*Islet Cell Biology, regeneration and Transplantation"* for **International Journal of Endocrinology**

***** 2016: Editor of a special Issue entitled "*Molecular mechanism of neuronal dysfunction in the diabetic brain*" for **Frontiers in Endocrinology**

***** 2019-Present: Handling Editor for the journal **Scientific Reports** (Nature Publication)

9. Invited lectures:

1999: Oral presentation at the annual meeting of Endocrine Society, San Diego: *"IGF 1-mediated induction of bcl-2 through p38MAPK pathway"*

1999: Research Conference presentation at the Division of Endocrinology *"CREB-mediated induction of Bcl-2"*

2001: Barbara Davis Center (BDC) for Childhood Diabetes *"Downregulation of CREB function and bcl-2 expression by diabetes-induced oxidative stress"*

2001: Oral presentation at Western Regional Islet Study Group meetings, San Francisco, CA: *"Cytokines mediated downregulation of CREB function and bcl-2 expression in beta cells"*

2002: Research Conference presentation at the Division of Endocrinology "*Enhancing survival pathways in pancreatic beta cells with transcription factor CREB"*

2002: Oral presentation at the Annual meeting of the American Diabetes Association, San Francisco: *"Interleukin-1β Mediated Downregulation of CREB Induced bcl-2 Expression in Beta Cells"*

2003: Department of Biology, University of Colorado, Denver (2003) *"Enhancing the survival of pancreatic beta cells in diabetes with the transcription factor CREB"*

2004: Oral presentation at the Annual meeting of the American Diabetes Association, Orlando, FL: *"Dominant negative mutant forms of the transcription factor CREB induce apoptosis in human islets"*

2006: Barbara Davis Center (BDC) for Childhood Diabetes *"Induction of cytoprotective heme oxygenase-1 by curcuminoids in beta cells"*

2006: Research Conference, Endocrinology Division: "Induction of cytoprotective phase 2 enzymes by curcuminoids through transcription factor Nrf2"

2006: Oral presentation at Western Regional Islet Study Group meetings, Aspen, CO: *"Induction of cytoprotective heme oxygenase-1 by curcuminoids in MIN6 cells and human islets"*

2007: DERC symposium on studies funded by NIH-DERC at Barbara Davis Center: "Induction of antioxidant enzymes by curcumin analogues in MIN6 cells and human islets"

2007: Perinatal Research Center. UCDHSC: *"Molecular mechanism of beta cell apoptosis in diabetes"*

2007: Oral presentation at International Herpes Workshop Asheville, SC: *"Simian varicella virus induces apoptosis in monkey kidney cells by an intrinsic pathway in which bcl-2 expression is downregulated"*

2008: Invited Speaker, Madras Diabetes Research Foundation, Chennai, TN, India: *"Molecular mechanism of beta cell apoptosis in diabetes"*

2008: Invited Speaker, Annamalai University, TN, India: *"Induction of antioxidant enzymes by the novel transcription factor Nrf2"*

2008: Research Conference, Endocrinology Division: *"Molecular mechanism of beta cell apoptosis in diabetes and in transplanted islets"*

2008: Invited Speaker, University of Minnesota, Minneapolis, MN: *"Molecular mechanism of beta cell apoptosis in isolated islets in a transplantation setting"*

2010: Oral presentation at International Herpes Workshop, Salt Lake City. *"VZV Infection of Differentiated Human Neural Stem Cells"*

2010: Oral presentation at the International Neurovirology meeting at Milan, Italy. *"VZV Infection of Differentiated Human Neural Stem Cells"*

2010: Invited Seminar, Barbara Davis Center for Childhood Diabetes, Anschutz Medical Campus: "*Targeting beta cell mass in diabetes through transcription factors"*

2011: Invited Speaker, JIPMER, Pondicherry, India *"Challenges facing islet transplantation in the treatment of diabetes"*

2011: VA Research day talk: *"Human Neural Stem Cell-derived Neurons and Alzheimer's Disease"*

2011: Invited Speaker, Sri Ramachandra University, Chennai: *"Strategies for improving islet transplantation outcome"*

2011: Oral presentation at International Herpes Workshop, Gdansk, Poland Gdansk, Poland. *"Chemokines and cytokines induced by VZV infection in human lung fibroblasts modulate apoptosis pathway genes Bcl-xL and Bim"*

2012: Invited Seminar, for the Lab Coats Program, Anschutz Medical Campus: *"Targeting brain neurons and pancreatic beta cells"*

2013: Invited Speaker, Annamalai University, Chidambaram, TN, India: *"GLP-1-based drugs in the treatment of Diabetes"*

2013: Invited Speaker, University of Madras, Chennai, TN, India: *"Molecular mechanism of neurodegeneration in the Alzheimer's Brain"*

2013: Invited Speaker, Indian Institute of Technology, Chennai, TN, India: *"Paradoxical actions of NF-kB in the cell death pathway"*

2013: Oral presentation at the Annual Meeting of the World Diabetes Congress, Melbourne, Australia: *"DPP-4 inhibition in diabetic rats leads to activation of the cytoprotective transcription factor CREB in pancreatic beta cells and brain"*

2014: Invited Seminar, Barbara Davis Center for Childhood Diabetes, Anschutz Medical Campus: *"Targeting GLP-1/cAMP pathway of pancreatic beta cells and brain in diabetes"*

2014: Oral presentation at the Annual Meeting of Society for Neurosciences, Washington DC: *"Regulation of the Neuroprotective Transcription Factor CREB During Glia-neuron Interactions"*

2015: VA Research day talk: *"Neuroinflammation in obesity as a risk factor for Alzheimer's Disease"*

2015: Invited talk at Garrison Institute on Aging, Texas Tech University Health Sciences Center, Lubbock, TX: "C*ommon neurodegenerative pathways in obesity, diabetes and Alzheimer's disease".*

2017: Invited talk at University of New Mexico, Albuquerque: *"Dysregulation of Sirtuin pathway in the Alzheimer's brain"*

2017: Neuroscience Graduate Program seminar talk, University of Colorado-Anschutz Medical Campus: "*Metabolic syndrome and the cellular phase of Alzheimer's Disease"*

2018: Rocky Mountain Regional VA Medical Center 'Research Day' talk *"A Novel Mouse model for Alzheimer's Disease with Metabolic Syndrome"*

2018: University of Colorado-Anschutz Medical Campus Department of Medicine Research and Innovation Conference talk *"Interactions of Metabolic Syndrome with Alzheimer's Disease"*

2019: Invited Talk at National Institute of Mental Health and Neuro-Sciences, Bengaluru, India. *"Microglial Dysregulation in the Alzheimer's Brain"*

2019: Invited talk at the International Conference on Neurochemistry and Neuropharmacology: From Bench to Bedside, Mysore, India *"Interactions of Metabolic Syndrome and Alzheimer's Disease"*

2019: Oral presentation the 14th International Conference on Alzheimer's and Parkinson's Diseases, Lisbon, Portugal. *"A Novel Mouse Model for Alzheimer's Disease with Metabolic Syndrome"*

2019: Rocky Mountain Regional VA Medical Center, Research in Progress seminar: *"Insulin Degrading Enzyme as a link between Diabetes and Alzheimer's Disease"*

10. Teaching Record and Graduate Program

1981-1988: Taught Biochemistry to MD (MBBS in India), Masters and PhD students as a Lecturer in the School of Medicine at University College of Medical Sciences, New Delhi, India.

2003-Present: Teaching on the topic "Gene transfer techniques" for the annual summer course "CLSC-7500: Practical applications of molecular and cell biological techniques for clinical investigators" (Course Directors: Dr. John Tentler and Dr. Andy Bradford).

External examiner for PhD thesis:
2008: Mr. R. Kumaraguruparan, Annamalai University, Chidambaram, TN, India. PhD thesis title: *"Evaluation of Biomarkers in human, canine and rat mammary tumors"*

2008: Ms. B.V. Latha, Defense Food Research Laboratory, Mysore, India. PhD thesis title: *"Isolation, Characterization and toxicological evaluation of the natural pigment from microbes"*

2012: Mr. J. Manjunathan, University of Madras, India. PhD thesis title: *"Isolation, purification, characterization and evaluation of antimicrobial and anticancer compounds from indigenous isolate of lentinus tuberregium Fr."*

2013: Ms. Maitreyi Subramaniam, Indian Institute of Technology, Chennai, TN, India. PhD thesis title: *"In Vitro Studies on the Role of Microrna-29B in Human Cancer Cells"*

2014: Ms. R. Venkatajothi, Bharathiar University, Coimbatore, TN, India. Title of thesis: *"Prevalence, Screening of Human Papilloma Virus Type 16 in AIDS Women"*

2015: Mr. Sugin Lal Jabaris, Sri Ramachandra University, Chennai, TN, India. Title of thesis: *Phosphodiesterase-4 inhibitors ameliorate hypertension-induced cognitive impairment of learning and memory functions via cAMP/CREB signaling system"*

2016: R. Santhana Sabapathy. University of Madras, India. PhD thesis title: *"Neuroprotective effect of farnesol against lipopolysaccharide induced neurodegeneration: elucidation of pi3k/akt/mtor signaling pathway"*

2016: Mr. A. Seenipandi, Annamalai University, Chidambaram, TN, India. PhD thesis title: *"Influence of atorvastatin on circadian regulation of biochemical and inflammatory markers in hyperlipidemic rats"*

2016: S. Kanimozhi. Annamalai University, Chidambaram, TN, India. PhD thesis title: *"Protective influence of quercetin on ammonium chloride induced hyperammmonemic rats"*

2016: S. Shanmugapriya. Annamalai University, Chidambaram, TN, India. PhD thesis title: *"Implications of circadian clock on the effects of geraniol against endometrial cancer in rats"*

2017: S. Sathishkumar. Annamalai University, Chidambaram, TN, India. PhD thesis title: *"Protective effects of rosmarinic acid on vancomycin induced nephrotoxicity in Wistar rats"*

2018: A Manjula. Annamalai University, Chidambaram, TN, India. PhD thesis title: *"Temporal regulation of redox homeostasis and proteome profile under oxidative stress in Drosophila melanogaster: influence of hesperidin"*

2018: M. V. Mahadevan. The Tamil Nadu Dr. MGR Medical University. PhD thesis title: *A study on the role of MIMOSA PUDICA (THOTTAR CHINUNGI) on the experimental models of Parkinsonism.*

2019: J. Krishnaraj. Annamalai University, Chidambaram, TN, India. PhD thesis title: *"Impact of Stainless Steel Welding Fumes On DNA Damage Response in the Respiratory Tract of Sprague-Dawley Rats"*

Research Mentorship:

1998:	Elisa Miller, University of Colorado
1999-2000:	Rebecca Ohman, University of Colorado
2001:	Sara Masterson, University of Colorado
2001-2002	Purevsuren Jambal MS
2002-2003:	Dhara Vaishnav MS
2003-2004:	Ketaki Phansalkar MS
2004-2005:	Maorong Wang MD
2004-2007:	Suparna Sarkar MD; PhD
2005-2007:	Sunil George PhD

2005-2007: Sreekala Nair PhD

2006-2012: Kalpana Velmurugan PhD

2007-2009: Anthony Tran, Metropolitan State College of Denver

2007-2008: Nicole Di Pace, Metropolitan State College of Denver

2007-2009: Elizabeth Brazeau, Graduate student

2009-2013: Gregory Mahaffey - “Lab Coats” Research Program

2011-2015: LiMei Qin, University of Colorado

2012-Present: Thomas Chong BS, University of Colorado and Regis University

2013-2015 Richard Rodriguez, University of Colorado

2014-2015: Smitha Nedunuri PhD

2015-2017: Trinh Nguyen BS

2015-Present: Alpna Tyagi PhD

2017-Present: Nadine Taher BS

2018-Present: Iman Shaw

2018-Present: Emily Moeller

2019-Present: Bobbie Lance BS

11. Development of patents:

***** Co-inventor (with Dr. Joe McCord) of the synergistic actions of the components of Protandim, a nutraceutical supplement

*****Lead inventor (patent pending) in the development of two novel comorbid Alzheimer’s mouse models (APP/PS1/Sirt3$^{-/-}$ and 5XFAD/Sirt3$^{-/-}$)

12. Grant Support:

Current Research Support

NEUD-004-07F 07/01/19 – 03/30/23
Veterans Administration Merit Review
SIRT3 Deficiency-mediated Metabolic Dysregulation in Comorbid Alzheimer’s Disease
The aim of this study is to examine the interactions of metabolic syndrome with amyloid pathology in the brain with a focus on microglial dysregulation.
Role: Principal Investigator

Completed Research Support

SOM_DOM Bridge funding 07/01/18 - 06/31/2019

NEUD-004-07F 04/01/13 – 03/30/18
Veterans Administration Merit Review

Mechanism of CREB dysregulation in Alzheimer's Brain
The aim of this study is to determine the mechanism of transcriptional dysregulation by inflammatory pathways in Alzheimer's disease
Role: Principal Investigator

SOM Bridge funding 02/28/12 - 03/30/13

NEUD-004-07F 07/01/08 – 03/30/13
Veterans Administration Merit Review
Mechanism of CREB dysregulation in Alzheimer's Brain
The aim of this study is to determine the mechanism of dysregulation in CREB-mediated gene expression induced by Abeta and oxidative stress in hippocampal neurons in Alzheimer's disease
Role: Principal Investigator

Takeda Investigator-Initiated-Sponsored Research 07/1/11 – 12/31/14
Prevention of beta cell apoptosis by alogliptin.
The aim of this study to determine the role of CREB in the preservation of beta cell mass in ZDF rats treated with alogliptin, an inhibitor of DPP-IV.
Role: Principal Investigator

NIH/NIA 1 P01 AG032958-01 03/01/09 – 10/31/11
The Molecular Pathogenesis of Varicella Zoster Virus Infection
Project 1: Analysis of Neuronal Antiapoptotic Mechanisms in VZV Latency;
Role: Co-Principal Investigator
The major goal of this project is to study mechanisms of VZV latency in neurons by studying the virus-induced apoptosis in nonneuronal and neuronal cells.

IISP-33024 01/01/08 – 12/31/09
MERCK
Mechanism of Anti-apoptotic Actions of GLP-1 in Pancreatic Beta Cells
The objective of this project is to examine GLP-1-induced expression of anti-apoptotic genes in a mouse beta cell line and human islets.
Role: Principal Investigator

1-06-JF-40 01/01/06 – 12/31/08
ADA-JFA
Molecular Mechanism of Beta Cell Apoptosis in NOD Mice
The goal of this project is to examine the pathways of apoptosis in insulin producing β cells during the development of autoimmune diabetes in NOD mice.
Role: Principal Investigator

PN200703-024 04/01/07 – 03/30/09
LifeVantage
Molecular Mechansim of Synergy Between Protandim Components
The goal of this investigation is to determine the mechanism synergy between the phytochemicals present in Protandim, a nutrional supplement, in the induction of antioxidant enzymes.
Role: Principal Investigator

5-2005-1104 09/01/05 – 08/31/07

JDRF-IA
Upregulation of Cytoprotective CREB in Islets by Adenoviral Gene Transfer
This major goal of this study is to overexpress CREB in human islets as a strategy to improve its survival in a transplantation setting.
Role: Principal Investigator

P30 DK-057516 04/01/05 – 03/30/07
DERC Pilot and Feasibility grant
Induction of Phase-2 Enzymes by Curcuminoids
This study examined the transcriptional mechanism of induction of antioxidant phase 2 enzymes by curcumin and its analogues.
Role: Principal Investigator

JDRF
CREB as a Survival Factor in Diabetic Neuropathy
This project investigated mechanism of CREB dysregulation by oxidative stress in cultured neurons and dorsal root ganglions from diabetic rats
Role: Co-Investigator
1-2002-293 (Reusch, PI) 04/01/02 – 03/30/05

American Diabetes Association (Innovation Award)
Title: CREB-regulated expression of the antiapoptotic gene, bcl-2 in pancreatic beta cells
Role: Principal Investigator 01/01/2001 - 12/31/2002

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13. Bibliography (Total: 73) (23 as Senior corresponding author*)

SIRT3 deficiency-induced mitochondrial dysfunction and inflammasome formation in the brain. Alpna Tyagi, Christy U Nguyen, Thomas Chong, Cole R Michel, Kristofer S. Fritz, Nichole Reisdorph, Leslie Knaub, Jane E. B. Reusch, and **Subbiah Pugazhenthi***. Scientific Reports, 8: 17547, 2018.

Pugazhenthi S*. Metabolic syndrome and the Cellular Phase of Alzheimer's Disease. Prog Mol Biol Transl Sci. 146: 243-258, 2017

Pugazhenthi S*, Qin L and Reddy PH. Common neurodegenerative pathways in obesity, diabetes and Alzheimer's disease. Biochim Biophys Acta. 2017

Qin L, Bouchard R and **Pugazhenthi S***. Regulation of cAMP response element binding protein during neuroglial interactions**.** J Neurochem. 136: 918-930, 2016

Klionsky DJ,……..**Pugazhenthi S**……(multiple authors). EDITORIAL: Guidelines for the use and interpretation of assays for monitoring autophagy (2nd edition). Autophagy. 2016

Qin L, Chong T, Rodriguez and **Pugazhenthi S***. Glucagon-like peptide-1-mediated modulation of inflammatory pathways in the diabetic brain: Relevance to Alzheimer's disease. Curr Alzheimer Res. 2016

Goalstone M and **Pugazhenthi S***. Editorial for the special issue "Molecular Mechanism of Neuronal Dysfunction in the Diabetic Brain". Frontiers in Endocrinology, 2016.

Pugazhenthi S*, Qin L, Bouchard R.Dipeptidyl peptidase-4 inhibition in diabetic rats leads to activation of the transcription factor CREB in beta cells. Eur J Pharmacol. 755, 42-49, 2015

Geary K, Knaub LA, Schauer IE, Keller AC, Watson PA, Miller MW, Garat CV, Nadeau KJ, Cree-Green M, **Pugazhenthi S**, Regensteiner JG, Klemm DJ, Reusch JE. Targeting mitochondria to restore failed adaptation to exercise in diabetes. Biochem Soc Trans. 2014 42(2):231-8

Pugazhenthi S*, Pancreatic Beta Cell Autophagy and Islet Transplantation. Book Chapter in "Autophagy" Edited by M.A. Hayat. 2014

Bouchard R, Chong T and **Pugazhenthi S***. Laser capture microdissection of neurons from differentiated human neuroprogenitor cells in culture. Journal of Visualized Experiments. 2013.

Pugazhenthi S*, Zhang Y, Bouchard R and Mahaffey G. Induction of an inflammatory loop by Interleukin-1β and tumor necrosis factor-α involves NF-kB and STAT-1 in differentiated human neuroprogenitor cells. PLoS One, 2013.

Balamurugan AN, Kumaravel V, **Pugazhenthi S** and Naziruddin B. Islet Cell Biology, regeneration and transplantation. Int J Endocrinology. 2012: 139787, 2012

Velmurugan K, Bouchard R, Mahaffey G and **Pugazhenthi S***. Neuroprotective actions of glucagon-like peptide-1 in differentiated human neuroprogenitor cells. J Neurochem. 123: 919-931, 2012

Wang M, Crager M and **Pugazhenthi S*.** Modulation of apoptosis pathways by oxidative stress and autophagy in beta cell. Experimental Diabetes Research. 2012: 647914, 2012

Velmurugan K, Balamurugan AN, Loganathan G, Ahmad A, Hering BJ and **Pugazhenthi S***. Antiapoptotic actions of exendin-4 against hypoxia and cytokines are augmented by CREB. Endocrinology. 153: 1116-28, 2012

Kachadourian R, Day BJ, **Pugazhenthi S,** Franklin CC, Genoux-Batide E, Mahaffey G, Gauthier C, Di Pietro A, Boumendjel A. A synthetic chalcone as a potent inducer of glutathione biosynthesis. J Med Chem 55: 1382-88, 2012

Pugazhenthi S*, Wang M, Pham S, Sze C-I and Eckman CB. Downregulation of CREB expression in Alzheimer's brain and in Abeta-treated rat hippocampal neurons. Molecular neurodegeneration. 6: 60-75, 2011

Gilden D, Mahalingam R, Nagel MA, **Pugazhenthi S**, Cohrs RJ. Review: The neurobiology of varicella zoster virus infection. Neuropathol Appl Neurobiol. 37:441-63, 2011.

Pugazhenthi S, Nair S, Velmurugan K, Liang Q, Mahalingam R, Cohrs RJ, Nagel MA, Gilden D. Varicella Zoster Virus Infection of Differentiated Human Neural Stem Cells. J Virol. 85: 6678-86, 2011.

Kachadourian R, **Pugazhenthi S,** Velmurugan K, Backos DS, Franklin CC, McCord JM, Day BJ. 2',5'Dihydroxychalcone-induced glutathione is mediated by oxidative stress and kinase signaling pathways. Free Radic Biol Med. 51: 1146-54, 2011.

Loganathan G, Dawra RK, **Pugazhenthi S**, Guo Z, Soltani SM, Wiseman A, Sanders MA, Papas KK, Velayutham K, Saluja AK, Sutherland DE, Hering BJ, Balamurugan AN. Insulin degradation by acinar cell proteases creates a dysfunctional environment for human islets before/after transplantation: benefits of α-1 antitrypsin treatment. Transplantation. 2011 Dec 15;92(11):1222-30.

Pugazhenthi U, Velmurugan K, Tran A, Mahaffey G, **Pugazhenthi S*.** Antiinflammatory action of exendin-4 in human islets is enhanced by phosphodiesterase inhibitors: potential therapeutic benefits in diabetes. Diabetologia. 53: 2357-2368, 2010.

Brazeau E, Mahalingam R, Gilden D, Wellish M, Kaufer BK, Osterrieder and **Pugazhenthi S**. Varicella-zoster virus-induced apoptosis in MeWo cells is accompanied by down-regulation of Bcl-2 expression. J Neurvirol. 16: 133-40, 2010.

Loganathan G, Dawra RK, **Pugazhenthi S,** Wiseman AC, Sanders MA, Saluja AK, Sutherland DE, Hering BJ, Balamurugan AN. Culture of impure human islet fractions in the presence of alpha-1 antitrypsin prevents insulin cleavage and improves islet recovery. Transplant Proc. 42(6):2055-7, 2010.

Li MY, Lai FJ, Hsu LJ, Lo CP, Cheng CL, Lin SR, Lee MH, Chang JY, Subhan D, Tsai MS, Sze CI, **Pugazhenthi S,** Chang NS, Chen ST. Dramatic co-activation of WWOX/WOX1 with CREB and NF-kappaB in delayed loss of small dorsal root ganglion neurons upon sciatic nerve transection in rats. PLoS One. 2009 Nov 12;4(11):e7820.

Son KN, **Pugazhenthi S,** Lipton HL. Activation of tumor suppressor protein p53 is required for Theiler's murine encephalomyelitis virus-induced apoptosis in M1-D macrophages. J Virol. 83: 10770-10777, 2009

Pugazhenthi S, Gilden DH, Nair S, McAdoo A, Wellish M, Brazeau E, Mahalingam R. Simian Varicella Virus Induces Apoptosis in Monkey Kidney Cells by the Intrinsic Pathway and Involves Downregulation of Bcl-2 Expression. J Virol. 83: 9273-9282, 2009

Sarkar S, Kutlu B, Velmurugan K, Kizaka-Kondoh S, Lee CE, Wong R, Valentine A, Davidson HW, Hutton JC, **Pugazhenthi S*.** Induction of anti-apoptotic genes linked to NF-κB signaling with cytokine exposure in human islets and in a mouse beta cell line**.** Diabetologia. 52: 1092-1101, 2009.

Balamurugan AN, Akhov L, Selvaraj G, and **Pugazhenthi S*.** Induction of antioxidant enzymes by curcumin and its analogues in human islets: implications in transplantation. Pancreas. 38: 454-460, 2009

Velmurugan K, Alam J, McCord JM and **Pugazhenthi S*.** Synergistic induction of heme oxygenase-1 by the components of the dietary supplement Protandim. Free Radical Biology and Medicine. 46:430-440, 2009

Gilden D, Nagel MA, Mahalingam R, Mueller NH, Brazeau EA, **Pugazhenthi S**, Cohrs RJ. Clinical and molecular aspects of VZV infection. Future Neurol 4:103-117, 2009.

Sivam SP, **Pugazhenthi S**, Pugazhenthi V, Brown H. L-DOPA-induced activation of striatal p38MAPK and CREB in neonatal dopaminergic denervated rat: relevance to self-injurious behavior (SIB). J Neurosci Res 86:339-349, 2008.

Pugazhenthi S*, Akhov L, Selvaraj G, Wang M, Alam J. Regulation of Heme oxygenase-1 expression by demethoxy curcuminoids through Nrf2 by a PI 3-kinase/Akt-mediated pathway in mouse beta cells. Am J Physiol Endocrinol Metab 293:E645-E655, 2007.

Sarkar S, Gunter J, Bouchard R, Reusch JE-B, Wiseman A, Gill RG, Hutton JC, **Pugazhenthi S***. Dominant negative mutant forms of CREB induce apoptosis and decrease the anti-apoptotic action of growth factors in human islets. Diabetologia 50:1649-59, 2007.

Mahalingam R, Gilden DH, Wellish M, **Pugazhenthi S**. Transactivation of the simian varicella virus (SVV) open reading frame (ORF) 21 promoter by SVV ORF 62 is upregulated in neuronal cells, but downregulated in non-neuronal cells by SVV ORF 63 protein. Virology 345:244-250, 2006.

Pugazhenthi S*, Phansalkar K, Audesirk G, West A, Cabell L. Differential regulation of c-jun and CREB by acrolein and 4-hydroxynonenal. Free Radic Biol Med 40:21-34, 2006.

Haskins K, Kench J, Powers K, Bradley B, **Pugazhenthi S**, Reusch JEB, McDuffie M. Role for oxidative stress in regeneration of islet beta cells? J Investig Med 52:45-49, 2004.

Haskins K, Bradley B, Morel K, Fadok V, Flores S, Ling T, **Pugazhenthi S**, Reusch JEB, Kench J. Oxidative stress in type 1 diabetes. Ann NY Acad Sci 1005:43-54, 2004.

Sze CI, Su M, **Pugazhenthi S**, Jambal P, Hsu LJ, Heath J, Schultz L, Chang NS. Downregulation of WOX1 induces Tau phosphorylation in vitro: a potential role in Alzheimer's disease. J Biol Chem 279:30498-30506, 2004.

Vaishnav D, Jambal P, Reusch E-BJ, **Pugazhenthi S***. SP600125, an inhibitor of c-jun N-terminal kinase activates CREB by a p38 MAPK-kinase pathway. Biochem Biophys Res Commun 307:855-860, 2003.

Jambal P, Masterson S, Nesterova A, Bouchard R, Bergman B, Hutton JC, Boxer LM, Reusch JE-B, **Pugazhenthi S***. Cytokine-mediated downregulation of the transcription factor cAMP-response element-binding protein in pancreatic β-cells. J Biol Chem 278:23055-23065, 2003.

Pugazhenthi S, Nesterova A, Purevsuran J, Audesirk G, Kern M, Cabell L, Eves E, Rosner MR, Boxer LM, Reusch JE-B. Oxidative stress mediated downregulation of bcl-2 promoter in hippocampal neurons. J Neurochem 84:982-996, 2003.

Pugazhenthi S, Nesterova A, Sable C, Heidenreich KA, Boxer LM, Heasley LE, Reusch JE-B. Akt/protein kinase B up-regulates Bcl-2 expression through cAMP response element binding protein. J Biol Chem 275: 10761-10766, 2000.

Pugazhenthi S, Miller E, Sable C, Young P, Heidenreich KA, Boxer LM and Reusch J E-B. Insulin-like growth factor-I induces bcl-2 promoter through the transcription factor cAMP response element binding protein. J Biol Chem 274:27529-27535, 1999.

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