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QUALIFICATIONS:

M.B.B.S.: Bangalore University, India 1979
M.D.: Postgraduate Institute, Chandigarh, India, 1982
M.Phil.: University of London, England, 1991
Ph.D.: University of London, England, 1996
Clinical Investigator Award: National Institutes of Health, Bethesda, MD, 1992-1996
Fellow: American Academy of Neurology, elected 1998

CERTIFICATIONS:

Neurology: American Board of Psychiatry & Neurology, 1991
Clinical Neurophysiology: American Board of Psychiatry & Neurology, 1997
Neurosonology: American Society of Neuroimaging, 1998
MRI/CT: American Society of Neuroimaging, 2000
Sleep Medicine: American Board of Sleep Medicine, 2003
Sleep Medicine: American Board of Psychiatry & Neurology, 2007

PROFESSIONAL AFFILIATIONS:

American Academy of Neurology: 1986-present
American Academy of Sleep Medicine: 1997-present
American Medical Association: 1997-present
American Society of Neuroimaging: 1998-present
Dallas County Medical Society: 1997-present

PATENTS

“A Novel Neuronal-Neonatal Gene: Neuronatin”
(Patent Issued, U.S. Patent & Trademark Office, November 1998)

TRAINING & EMPLOYMENT

2006-Present Attending Neurologist, Presbyterian Hospital of Plano and Medical Center of Plano, Plano, Texas
1997- Present Clinical Assistant Professor, University of Texas-Southwestern Medical Center at Dallas, Texas.
1997-2006 Attending Neurologist, Baylor Medical Center, Garland, Texas
1996-1997 Attending Neurologist, Texoma Neurology Associates, Denison, Texas
1990-1996 Director, Laboratory of Molecular Neuroscience, Henry Ford Hospital & Health Sciences Center, Detroit, Michigan
1990-1996 Senior Staff Neurologist, Henry Ford Hospital & Health Sciences Center, Detroit, Michigan
1989-1990 Fellowship, Harvard Medical School & Beth Israel Hospital, Boston, Mass
1985-1989 Internship & Residency in Neurology, Henry Ford Hospital & Health Sciences Center, Detroit, Michigan.
1983-1985 Registrar in Neurology, University of London & Charing Cross and Westminster Medical School, London, England.
1979-1982 Residency in Internal Medicine, Postgraduate Institute of Medical Education & Research, Chandigarh, India.
1973-1979 Medical School & Internship, Bangalore University & St. John’s Medical College, Bangalore, India.
1971-1973 Pre- University Course, Bangalore University & St. Joseph’s College, Bangalore, India.
1959-1971 School, St. Joseph’s & St. Anthony’s Boys School, Bangalore, India.

AWARDS/HONORS

Physician Recognition Award of the American Medical Association, 1997-2000.
Clinical Investigator Award, National Institutes of Health (KO8-NS01521), 1992-1996.
American Heart Association National Center Grant-in-Aid (92-013200), 1992-1995.
Harold G. Wolff, MD Lecture Awards, 1986 & 1988.
Postgraduate Institute of Medical Education and Research Award 1982.
Member, NIH-Ad Hoc Review Committee (Primary Reviewer), 1995.
Guest referee for the journal Brain Research
Invited Participant at the 18th Princeton Conference on Cerebrovascular Diseases, 1992.
Invited Participant a the 19th Princeton Conference on Cerebrovascular Diseases, 1993.
Reviewer for the following journals: Acta Neuropathologica, Atherosclerosis, Brain Research, Cephalalgia, Headache, Journal of Cerebrovascular Diseases, and Stroke.

RESEARCH ACCOMPLISHMENTS

Discovery of a novel human gene involved in brain development. This gene is named *Neuronatin* (neuronal-neonatal). The complete human *neuronatin* gene has been sequenced and added to the human genome database. The experiments leading to the isolation and sequencing of *neuronatin* is provided in my Ph.D. thesis (University of London, 1996).

GENBANK SUBMISSIONS:

Accession Numbers:

1. U08290, April 4, 1994, Rat Neuronatin- α cDNA
2. U09785, May 16, 1994, Rat Neuronatin- β cDNA
3. U25033, April 13, 1995, Human Neuronatin- α cDNA
4. U25034, April 13, 1995, Human Neuronatin- β cDNA
5. U31767, July 17, 1995, Human Neuronatin Gene

GRANT SUPPORT

1992-1996: Principal Investigator, NIH-Clinical Investigator development Award #KO8-NS01521, "Neuron-Platelet Interactions", 5/1/1992-4/30/1996, \$262,000.00 of direct costs.

1992-1995: Principal Investigator, American Heart Association-National Center-Grant-in-Aid #92013200. "Study of Platelet-Mediated Neurotoxicity", 7/1/1992=6/30/1995, \$132,000.00 of direct costs.

1993-1995: Principal Investigator, Fund for Henry Ford Hospital Grant #A10104, "Neuron-Platelet Interactions", 1/1/1993-12/31/1995, \$180,000.00 of direct costs.

1988-1989: Principal Investigator, Henry Ford Hospital Grant #A30280, "Platelet cytosolic calcium in stroke", 7/1/1988-7/1/1989, \$5000.00 of direct costs.

1990-1992: Co-investigator, American Heart Association-Michigan Chapter Grant-in-Aid #D11038, PI:SR Levine, "Antiphospholipid antibodies and stroke", 7/1/1990-6/30/1992. \$50,000.00 of direct costs

1991-1993: Principal Investigator, Fund for Henry Ford Hospital Grant #A10104, "Neuron-Platelet Interaction", 1/1/1991-12/31/1992, \$260,000.00 of direct costs.

1991-1993: Supervisor, WHO-Fogarty-NIH International Neuroscience Fellowship Award #1-FO5-TWO04634-01 (NSS), 5/1/1991-4/30/1993 made to Dr. E. Han for

project, "Effect of PAF antagonists in stroke", \$52,000.00 of salary support. The project was carried out under my supervision.

THESES

Ph.D. Thesis: "Molecular cloning of neuronatin: A novel brain-specific mammalian developmental gene". University of London, England, 1996

M.Phil. Thesis: "The platelet theory of migraine: a controlled clinical and laboratory evaluation". University of London, England, 1991.

SERVICE

GUEST REFEREE:

Brain Research

JOURNALS REQUESTING PEER-REVIEW OF MANUSCRIPTS:

Acta Neuropathologica

Atherosclerosis

Brain Research

Cephalalgia

Headache

Journal of Cerebrovascular Diseases

Stroke

ESTABLISHING THE LABORATORY OF MOLECULAR NEUROSCIENCE:

established this laboratory at Henry Ford Hospital. The focus of study has been an understanding of the reasons for neuronal vulnerability to injury during development. Thus far, the major contribution of this Laboratory has been the cloning of Neuronatin, a novel brain-specific mammalian developmental gene.

SUPERVISION OF PERSONNEL:

July 1990 to April 1996: In the Laboratory of Molecular Neuroscience, I supervised one senior technician and 1-2 post-doctoral fellows.

Post-Doctoral Fellows:

D. Dou, PhD. Osaka University, Japan: January 1994 to April 1996. Project: The human genomic locus of Neuronatin.

E. Han, MD, Jinan University, China: July 1991 to January 1994. Project: PAF antagonists in stroke, funded by a WHO-Fogarty-NIH International Neuroscience Fellowship Award.

Limen She, MD, Guandong University, China: July 1991 to June 1992. Effect of serotonin on spinal explants

S. Grunfeld, MS, Oakland University, Rochester, Michigan: July 1990 to November 1992. Effects of platelets on spinal organotypic cultures.

Graduate Students:

Wei Li, BS, Shanghai University, China: August 1991 to April 1992. Effect of beta-amyloid on DNA fragmentation

Shawn Dodd, BS, Wayne State University, Detroit, Michigan. March 1991 to July 1991. Preparation and maintenance of spinal cord explants.

S.B. Oster, BS, Osteopathic Medical School, des Moines, Iowa, July 1986 to June 1989. Changes in platelet activity in acute ischemic stroke.

Visiting Faculty Hosted in the Laboratory:

Rigmor Malmgrem, MD, PhD, Karolinska Institute, Stockholm, Sweden. August 1989 to May 1990.

Giovanni D'Andrea, MD, VicenzaHospital, Italy. July 1987 to June 1988.

COMMITTEE WORK

1998-2000: Professional Advisory Board, Dallas Epilepsy Association, Dallas, Texas

1997: Quality Assurance Committee, Texoma Medical center, Sherman, Texas

1995: NIH-Ad-Hoc Review Committee, Primary Reviewer, Bethesda, Maryland

1991-1996: Neurology Research Committee, Henry Ford Hospital, Detroit

1990-1991: Neurology Clinical Practice Committee, Henry Ford Hospital, Detroit, Mich

TEACHING EXPERIENCE

Organized seminar series for Neurology-Neurosurgery departments, "Genetics in Neuroscience", Henry Ford Hospital, Detroit, MI, January 1996.

Organized seminar series for Neurology- Neurosurgery departments, "Outline of Human Brain Development", Henry Ford Hospital, September 1995

Henry Ford Hospital & Health Sciences Center: For two months in a year, I Attended on The inpatient neurology service. During these months, I carried out daily bedside Rounding and teaching with the Neurology residents, and residents rotating from the other Services (July 1990- April 1996).

University of Michigan: Clinical teaching and lectures for medical students rotating from The University of Michigan, and for residents from the Departments of Neurology, Neurosurgery, Internal Medicine and Psychiatry residents (July 1990- April 1996).

University of London, Charing Cross & Westminster Medical School: Lectures and

Bedside demonstrations for medical students and residents (January 1983-June 1985)
Royal College of Physicians, London, U.K.: Clinical teaching and demonstration as part
Of the MRCP-Final preparation course.

Postgraduate Institute of Medical Education and Research, Chandigarh: Clinical teaching
For Bangalore University & St. John's Medical College: Clinical teaching and lectures
for 3rd and 4th year medical students (April 1978 – November 1979).

TECHNICAL PROFICEINCY

Electroencephalography (EEG)
Electromyography (EMG)/Nerve Conduction Studies (NCS)
Evoked Potential Studies (EP)
Use of Botulinum Toxin (Botox)
Sleep Studies and Polysomnography (PSG)
Carotid and Transcranial Doppler (TCD) Studies
Computed Tomography (CT)
Magnetic Resonance Imaging (MRI)

PAPERS PRESENTED AT CONFERENCES

World Federation Of Neurology, Neurogenetics Study Group, Boston 1997.
American Academy of Neurology, 1985-1989, 1991-1997.
Society for Neuroscience, 1991-1994.
American Neurological Association, 1987-1989, 1994, 1995.
Gordon Research Conference, Boston 1994.
Human Genome 1994: Genes and Beyond, Washington DC 1994.
Princeton Conference on Cerebrovascular Diseases, 1992, 1994.
Miami/Bio Technology Conference, Fort Lauderdale 1994.
Miami/Bio European Conference, Monaco 1994.
International Joint Conference on Stroke and Cerebral Circulation, 1988, 1994.
American Association for the Advancement of Science, Washington DC 1991.
International Migraine Symposium, 1984, 1986, 1988, 1990
American Association for the Study of Headache, 1986, 1988.
International Headache Congress, 1983, 1985, 1987.

PAPERS PRESENTED BY INVITATION

World Federation of Neurology, Neurogenetics Research Group Meeting, “Neuronatin-beta
mRNA expression in the adult human caudate and putamen”, April 19, 1997, Boston.
Henry Ford Hospital Research Seminar, “The significance of neuronatin in human brain
development”, April 16, 1996, Detroit Michigan.
Wayne State University School of Medicine, “Molecular cloning of novel human brain
developmental gene”, June 1, 1995, Detroit, Michigan.
Henry Ford Hospital, Neuroscience Grand Rounds, “Molecular mechanisms of mammalian brain
growth”, December 14, 1994, Detroit, Michigan. Michigan Neurological Association, “Molecular

cloning of Neuronatin: A novel gene involved in mammalian neurogenesis”, October 1, 1994, Detroit, Michigan.

Henry Ford Hospital, Neuroscience Grand Rounds, “The regulation for B-amyloid precursor protein gene expression”, October 13, 1993. Detroit, Michigan.

Henry Ford Hospital, Neuroscience Grand Rounds, “The mechanism of neuronal death”, February 26, 1993, Detroit, Michigan.

Henry Ford Hospital, Neuroscience Grand Rounds, “Mechanism of platelet-mediated neuronal death”, January 31, 1992, Detroit Michigan.

Henry Ford Hospital, Hemostasis/Thrombosis Center, Symposium on Coagulation Issues in Neurology: “Platelets and platelet product effects on neuronal culture”, November 1, 1991, Detroit, Michigan.

Italian National Meeting on Stroke and Headache, Cefalee Ed Attacchi Ischemici Cerebrali: Dati Acquisiti E Problematiche Aperte, “Neuron-platelet interactions”, September 12, 1991, Vicenza, Italy.

Henry Ford Hospital, Neuroscience Grand Rounds, “Neuron-platelet interaction”, October 12, 1990, 12. Beth Israel Hospital & Harvard Medical School, “Neuron-platelet interactions”, June 8, 1990, Boston.

Massachusetts General Hospital & Harvard Medical School, “Evidence for membrane abnormality in migraine based on study of platelets”, May 9, 1990, Boston, Massachusetts.

Royal College of Physicians, “MRCP Part II clinical teaching course”, September 1984, London, UK.

World Federation of Neurology, Research Group on Headache and Migraine, “Cluster headache and herpes simplex”, September 22, 1984, London, UK.

TEN SELECTED PUBLICATIONS (FROM A TOTAL OF 159)

Joseph R, et al. *Neuronatin* mRNA in PC12 cells: Downregulation by nerve growth factor. Brain Res 1996; 738:32-38

Dou D, **Joseph R** Cloning of human *neuronatin* gene and its localization to chromosome-20q11.2-12: the deduced protein is a novel “proteolipid”. Brain Res 1996; 723:8-22

Dou D, **Joseph R** The structure and organization of the human *neuronatin* gene. Genomics 1996; 33:292-297.

Joseph R, et al. Neuronatin mRNA: Alternatively spliced forms of a novel brain-specific Mammalian developmental gene. *Brain Res* 1995; 690:92-98.

Joseph R, et al Molecular cloning of a novel mRNA (Neuronatin) that is highly expressed in neonatal mammalian brain. Biochem Biophys Res Commun 1194;201:1227-1234.

Joseph R, et al. Platelet activity and stroke severity. J Neurol Sci 1992; 108:1-6.

Joseph R, et al Platelet secretory products may contribute to neuronal injury. Stroke 1991; 22:1448-1451.

Joseph R, et al. A plasmatic factor may cause platelet activation in acute ischemic stroke. Circ Res 1989; 65:1679-1687.

Joseph R, et al. Bilateral pontine gaze palsy: nuclear magnetic resonance findings in presumed multiple sclerosis. Arch Neurol 1985; 42:93-94

Joseph R, Rose FC. Cluster and herpes simplex Brit Med J 1985; 290:1625.