ALLAN EARL RUBENSTEIN, MD COMPREHENSIVE NEUROLOGY SERVICES, PC

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ACADEMIC TRAINING:

Cornell University, B.A., 1966

University of Rochester School of Medicine, 1966 – 1968 Tufts University School of Medicine, 1968 – 1970, M.D., 1970

Intern, Medicine, Columbia University College of Physicians and Surgeons, Harlem Hospital Division, 1970 – 1971

Resident in Neurology, Columbia-Presbyterian Medical Center – New York Neurological Institute, 1971 – 1974

POST-GRADUATE TRAINING:

Annual Course on Radioassay Techniques, The Endocrine Society, Bethesda, MD, 1977

Medical Genetics and Experimental Mammalian Genetics, Jackson Laboratory, Bar Harbor, ME, 1982

SPECIALTY BOARD CERTIFICATION:

American Board of Psychiatry and Neurology, 1976 (Neurology) American Society for Neuroimaging, Neuro-CT, 1982 (Inactive)

MEDICAL SOCIETIES:

American Academy of Neurology, Fellow 1978 – 2004, Active 2004-Present

American Society for Clinical Oncology

Society for NeuroOncology

American Association for Cancer Research

New York State Medical Society

New York County Medical Society

New York Academy of Sciences (Inactive)

New York Academy of Medicine

Royal Society of Medicine

HONORS, AWARDS AND APPOINTMENTS

HONORS AND AWARDS:

• 1978: Founder, Children's Tumor Foundation

• 1978-2003: Director of Medical Affairs, Children's Tumor Foundation

• 1989: Distinguished Achievement in Medical Research, East Manhattan Chamber of

Commerce

• 2003-Present: Medical Director Emeritus, Children's Tumor Foundation

• 2013: Juilliard School concert series endowed in my honor for children at Hassenfeld

Pediatric Cancer Center, NYU Langone Medical Center

• 2014: Connecticut River Museum, Essex, CT: Board of Trustees

• 2015: Fredonia High School (Fredonia, NY) Academic Hall of Fame

ACADEMIC JOURNALS:

• Contributing Editor, Mount Sinai Journal of Medicine, 1976 - 2004

Invited Reviewer:

New England Journal of Medicine, Science, Cancer Research, Neurology, Archives of Neurology, Journal of the Autonomic Nervous System, Family Medicine

ACADEMIC ORGANIZATIONS:

- Children's Tumor Foundation
 - o 1978: Co-Founder
 - o 1978 2003: Medical Director
 - o 1987 2003: Board of Directors
 - o 2003-Present: Medical Director Emeritus
 - 2015 Children's Tumor Foundation expert panel on dermal neurofibromas
- Dysautonomia Foundation:
 - o 1980 1992: Medical Advisory Board
- Von Hippel-Lindau Family Alliance
 - 1994 2003 Medical Advisory Board
- American Board of Psychiatry and Neurology
 - o 1976-1990: Examiner

GOVERNMENTAL AGENCIES:

- NINDS
- 1987: Working Group on NF
- 1987: Neurogenetics Study Section, Ad hoc member -- National Cancer Institute
- 1982: U.S. Representative, U.S. Japan Cooperative Cancer Program, Workshop on Neural Crest Tumors
- U.S. FDA
- 1996, 2001 Neurology Study Section, Ad hoc member -- Orphan Products Grant Program
- U.S. DEPARTMENT OF DEFENSE

- o 1997 2000 Member, Integration Panel, U.S. Army NF Research Program,
- o 2001: Head, Integration Panel, U.S. Army NF Research Program

HOSPITAL APPOINTMENTS:

- NYU Langone Medical Center: Adult and Pediatric Neurology
- 2009 Present: Attending
- Mount Sinai Hospital, Neurology:
 - o 1974 1981: Assistant Attending
 - o 1982 2009: Associate Attending
- Beth Israel Hospital, Neurology:
 - o 1974 1976: Assistant Attending
- Catholic Medical Center of Brooklyn and Queens:
 - o 1974 1986: Consultant in Neurology

MEDICAL SCHOOL APPOINTMENTS:

• INSTRUCTOR, NEUROLOGY 1974 - 1976

- o Department of Neurology, Mount Sinai School of Medicine
- o Chief of Neurology, Bernstein Institute at Beth Israel Hospital
- o Director of Neurology Rotation, Beth Israel Hospital
 - Conducted daily teaching rounds with residents.
 - Organized and ran weekly neurology conference.
 - Supervised medical student rotation in neurology.

• ASSISTANT PROFESSOR, NEUROLOGY 1977 - 1981

- o Director, Autonomic Function Laboratory
 - Developed clinical autonomic function laboratory with physiologic, pharmacologic and pupillometric capabilities.
 - Studied autonomic abnormalities in Shy-Drager syndrome, OPCA, Parkinson's disease, various types of peripheral neuropathy and familial Dysautonomia.
 - Received peer reviewed funding from the Dysautonomia Foundation and appointed to its Medical Advisory Board.
 - Contributor to first textbook on autonomic failure, edited by Sir Roger Bannister.

• ASSOCIATE PROFESSOR, NEUROLOGY: 1982-2008

o Director, Mount Sinai Neurofibromatosis Research and Treatment Center

Established first interdisciplinary clinic devoted to Neurofibromatosis in the world. The clinic has been a model for over 50 other NF clinics in the U.S., Europe and South America. The clinic had one of the largest NF populations in the world.

Contributed to descriptions of numerous clinical phenomena in NF which expanded the
spectrum of the disorder, including learning disability, progressive dural ectasia and adult onset
meningocoele, congenital megacolon, congenital melanocytic nevi, benign brainstem tumors,
xanthogranuloma, clustering of severe complications in NF kindreds, familial transmission of
segmental NF, post-zygotic mutation in twins with NF, unidentified bright objects (UBO's) on
MRI, large deletion phenotype in NF-1, recurrent sporadic mutations in NF-1, and postradiation malignancy in NF-2.

- Organized first genetic counseling program for NF, which includeed individual and family counseling, crisis intervention, outreach and support groups.
- Designated by New York State Office of Mental Retardation and Developmental Disabilities as only NF outreach and Crisis intervention center in New York State.
- Designated as participating center in National NF Foundation pilot project on clinical database for NF; participating center in first multi-center clinical trials for the treatment of NF-1.

RESEARCH

- Developed cellular biology laboratory focusing on growth control in neurofibromas. The laboratory had 2 junior faculty Ph.D.s, 1 post-doctoral fellow and 1 M.D. Ph.D. candidate. The laboratory received funding from the Easter Seals Research Foundation, the National NF Foundation and the NIH.
- Performed first neurotransmitter analysis of neurofibromas, first studies on effects of growth factors on neurofibromas and first identified NGF receptors on neurofibromas. The latter discovery led to the ability to produce pure schwann cell cultures from neurofibromas and to the use of the NGF receptor gene as a candidate gene in the first successful linkage study on NF.
- NF tumor, blood, skin biopsy and autopsy material from the center was a major source of research material for numerous gene linkage, cloning and cancer research laboratories in the U.S. and Europe.

TEACHING

- Provided specialty clinic experience for adult and pediatric neurology, pediatrics and genetic residents.
- Developed the first NF specialty rotation for genetic counseling students in the world with Sarah Lawrence College graduate program in Human Genetics and the Mount Sinai Department of Genetics.

• 2009-Present:

CLINICAL PROFESSOR OF NEUROLOGY AND PEDIATRICS, NYU LANGONE MEDICAL CENTER

CORPORATE ACTIVITIES

1992 – Present: THE COOPER COMPANIES, (COO, NYSE): Vice Chairman of the Board of Directors and Lead Director, Chairman of Governance/Nominating Committee, Member of the Science/Technology and Compensation Committees.

The Cooper Companies is a publicly-traded medical device company based in Pleasanton, California. CooperVision manufactures contact lenses. CooperSurgical produces products for Women's Health Care, including IVF equipment and pre-natal genetic diagnosis. The company has 10,000 employees world-wide.

2003-2011: NEXGENIX PHARMACEUTICALS, CEO

Privately-held drug development effort for orphan neurologic disorders. NexGenix merged in 2011 with Oncosynergy, a privately-held biotechnology company based in San Francisco.

2012-Present: CALASIA PHARMACEUTICALS: Chairman, Board of Directors.

Privately-held biotechnology company based in San Diego, California.

PATENTS/ PATENT APPLICATIONS

- 1. Heck, J., N. Winssinger, J. Chabala, S. Barluenga, R. Chen, A.E.Rubenstein, X. Shen, J. Yu, M. Giovannini, "Macrocyclic Prodrug Compounds Useful as Therapeutics," International Patent Application, 2009, Application No. PCT/US09/34878.
- 2. Chen, R., A.E. Rubenstein, X. Shen, and J. Yu, and M. Giovannini, "Treatment of Neurofibromatosis with Radicicol and its Derivatives," International Patent Application, Publication No. WO 08/150302.
- 3. Chen, R., A.E. Rubenstein, and X. Shen, "Local Treatment of Epidermal and Dermal Hyperproliferative Lesions," International Patent Application, Publication No. WO 08/021981.
- 4. Chen, R., A.E. Rubenstein, X. Shen, and J. Yu, and M. Giovannini, "Treatment of Neurofibromatosis with HSP90 Inhibitors," International Patent Application, Publication No. WO 07/143630.
- 5. Chen, R., A.E. Rubenstein, X. Shen, and J. Yu, and M. Giovannini, "Treatment of Neurofibromatosis with Inhibitors of a Signal Transduction Pathway," International Patent Application, Publication No. WO 07/143629.

PUBLICATIONS

- 1. <u>Rubenstein AE</u>, Boyle J, Odoroff CL and Kunitz SJ: Effects of improved sanitary facilities on infant diarrhea in a Hopi village. Public Health Reports 84: 1093 1097, 1969.
- 2. <u>Rubenstein AE</u> and Brust JCM: Parkinsonian syndrome as a complication of post-thyroidectomy hypoparathyroidism. NY State J. Med. 74: 2029 2030, 1974.
- 3. <u>Rubenstein AE</u>, Lovelace RE, Behrens MD and Weisburg, LA: Moebius syndrome in association with peripheral neuropathy and Kallman syndrome. Arch. Neurol. 32: 480-482, 1975.

- 4. <u>Rubenstein AE</u> and Yahr MD: Adult onset autonomic dysfunction coexistent with familial dysautonomia in a consanguineous family. Neurol. 27: 168-170, 1977.
- 5. <u>Rubenstein AE</u> and Wainapel SF: Acute hypokalemic myopathy in alcoholism. Arch. Neurol. 35: 553-555, 1977.
- 6. Yahr MD and <u>Rubenstein AE</u>: Extrapyramidal disorder of the central nervous system. In: Tice's Practice of medicine. Vol. 10, Chap. 12, Harper and Row, New York, NY 1977.
- 7. <u>Rubenstein AE</u>, Yahr MD, Mytilineou C, et al: Peripheral catecholamine depletion in amyloid autonomic neuropathy. Mt. Sinai J. Med. 45 (6): 782-789, 1978.
- 8. <u>Rubenstein AE</u>, Horowitz SH and Bender AN: Cholinergic dysautonomia in the myasthenic (Lambert-Eaton) syndrome. Neurol. 29: 720-723, 1979.
- 9. <u>Rubenstein AE</u>, Mytilineou C, Yahr MD, Sivak M, Mindel J. and Frontera AT: Orthostatic hypotension in the Holmes-Adie syndrome. Mt. Sinai J. Med. 47: 15-23, 1980.
- 10. Gleicher N, Milano CL, <u>Rubenstein AE</u> and Deligdisch L: Phakomatoses in reproductive medicine. Mt. Sinai J. Med. 47: 311-316, 1980.
- 11. Korczyn AD, <u>Rubenstein AE</u>, Yahr MD and Axelrod F: The pupil in familial dysautonomia. Neurol. 31 (5): 628-629, 1981.
- 12. <u>Rubenstein AE</u>, Mytilineou C, Yahr MD, Pearson J. and Goldstein M: Neurotransmitter analysis of dermal neurofibromas: implications for the pathogenesis and treatment of Neurofibromatosis. Neurol. 31 (9): 1184-1188, 1981.
- 13. Mindel JS, <u>Rubenstein AE</u> and Franklin B: Ocular erotamine tartrate troxicity during treatment of vacor-induced orthostatic hypotension. Am. J. Opthalm. 92: 492-296, 1981.
- 14. Businaro R, Butler R, <u>Rubenstein AE</u> and Revoltella R: Monoclonal antibodies to mouse nerve growth factor produced by somatic cell hybrids. J. Neurosci. Res. 6: 89-98, 1981.
- 15. Wulfsohn M and <u>Rubenstein AE</u>: The management of Shy-Drager syndrome with propantheline and intermittent self-catheterization. J. Urology 126: 122-123, 1981.
- 16. Rubenstein AE, Mytilineou C, Yahr MD and Revoltella R: Neurologic aspects of Neurofibromatosis. Adv. Neurology 29: 11-23, 1981.
- 17. Riccardi V, <u>Rubenstein AE</u>, Fitzpatrick TB, et al: Clinical Diagnosis of Neurofibromatosis. Adv. Neurology 29: 86-89, 1981.
- 18. <u>Rubenstein AE</u>, Korczyn AD, Rayfield EJ and Thorton JC: Symposium on Diabetic Autonomic Neuropathy: Neurophysiology. NYS J. of Med. 82 (6): 588-589, 1982.
- 19. Korczyn AD and <u>Rubenstein AE</u>: Autonomic complications of therapy. In: Silverstein, A. ed: Neurologic Complications of Drugs. Plenum Press, New York, 1982.
- 20. <u>Rubenstein AE</u>: Amyloid neuropathy, In: Bannister, R., ed. Autonomic Failure. Oxford University Press, London, 1983.
- 21. Spence AM, Bader JL, Parry DL, Field LL, Funderburk SJ, <u>Rubenstein AE</u>, Gilman A and Sparkes RS: Linkage analysis of Neurofibromatosis. British Journal of Medical Genetics 25: 334-337, 1983.
- 22. <u>Rubenstein AE</u>: Neurofibromatosis. World Book Encyclopedia 22: 1173, 1983.
- 23. <u>Rubenstein AE</u> and Yahr F: Neurofibromatosis Information Booklet. Published by the National Neurofibromatosis Foundation, 1983.
- 24. <u>Rubenstein AE</u>, Gudesblatt M and Yahr MD: Acute autonomic neuropathy. Int. J. Neurology 31: 41-43, 1984.
- 25. Sobue G, Sonnenfeld KH, <u>Rubenstein AE</u>, Pleasure D: Tissue culture studies of Neurofibromatosis: Effects of axolemmal fragments and cyclic adenosine 3', 5' monophospate analogues on proliferation of Schwann-like and fibroblast-like neurofibroma cells. Ann. Neurol. 18: 68-73, 1985.
- 26. Sonnenfeld KH, Bernd P, Sobue G, Lebwohl M and <u>Rubenstein AE</u>. Nerve growth factor receptors on dissociated neurofibroma Schwann-like cells. Cancer Res, 76: 117, 1986.

- 27. <u>Rubenstein AE</u>: Neurofibromatosis: A Review of the clinical problem. Ann. NY Acad. Sci. 486: 1-13, 1986.
- 28. Sonnenfeld KH, Bernd P, <u>Rubenstein AE</u> and Sobue G: Nerve growth factor binding to cells derived from Neurofibromatosis. Ann. NY Acad. Sci. 486: 107-114, 1986.
- 29. Pleasure D, Kreider B, Sobue G, Ross A, Koprowski H, Sonnenfeld K and <u>Rubenstein AE</u>: Schwann-like cells cultured from human dermal neurofibromas: immunohistological identification and response to Schwann cell mitogens. Ann NY Acad. Sci. 486: 227-240, 1986.
- 30. Rubenstein AE: Neurofibromatosis. Medicine in the News 5:98, 1986.
- 31. Rubenstein AE: Neurofibromatosis 1977-1987: Conn. Med. 42: 1-3, 1987.
- 32. Seizenger BR, Rouleau GA, Ozeliis LJ, Lane AH, Farmer GE, Lamiell JM, Haines J, Yuan J, Collins D, Majoor-Krakaver D, Bonner T, Mathew C, <u>Rubenstein AE</u>, Halperin J, McConkie-Rosell A, Green J, Trofatter J, Ponder B, Elerman L, Bowmer M, Schimke R, Oostra B, Aronin N, Smith D, Drabkin H, Waziri M, Hobbs W, Martuza R, Conneally P, Hsia AY, Gusella J: Von Hippel-Landau Disease Maps to the Region of Chromosome 3 Associated with Renal Cell Carcinoma. Nature, vol. 332, March 17, 1988, p. 268.
- 33. <u>Rubenstein AE</u>, Aron A. Wallace S and Halperin J: Neurologic Aspects of Neurofibromatosis. In: NF: A Handbook for Patients, Families and Health Care Professional. Thieme-Stratton. NY, 1990, p. 55-58.
- 34. Aron A, Wallace S, <u>Rubenstein AE</u> and Halperin J: Learning Disabilities in Neurofibromatosis. In: NF: A Handbook for Patients, Families and Health Care Professionals. Thieme-Stratton. NY, 1990, p. 55-58.
- 35. <u>Rubenstein AE</u> and Halperin JC: Neurofibromatosis: Diagnosis and Management. Neurology Forum 2 (1): 13-14, 1991.
- 36. <u>Rubenstein AE</u>: Phakomatoses. In: Current Diagnosis in Neurology. Mosby-Yearbook, Phil., 1994.
- 37. Kayes LM, Burke W, Bennett R, Ehrlickh P, <u>Rubenstein AE</u>, Riccardi VM, Stephens K: Deletions spanning the Neurofibromatosis 1 gene: identification and phenotype of five patients. J. Am. Soc. Hum. Genetics 54 (3): 424-436, 1994.
- 38. Mindel J. <u>Rubenstein AE</u>, Walalce S, Aron A, Halperin JH: Congenital Horner's Syndrome does not prevent the development of Lisch Nodules in NF-1. Ann. Neurology, 35 (1): 123-124, 1994.
- 39. Leppig KA, Vislochil D, Neil S, <u>Rubenstein AE</u>, Johnson VP, Zhu XL, Brothman AR, and Stephens K: The detection of contiguous gene deletions at the Neurofibromatosis 1 locus with fluorescence in situ hybridization: Cytogenet Cell Genet 72: 95-98, 1996.
- 40. Guttman DH, Aylsworth A, Carey JC, Korf B, Marks J, Pyertiz RE, <u>Rubenstein AE</u> and Viskochil D: The Diagnostic Evaluation and multidisciplinary Management of Neurofibromatosis 1 and Neurofibromatosis 2. JAMA 278 (1): 51-57, 1997.
- 41. <u>Rubenstein AE</u> and Lieberman F: Neurocutaneous Syndromes. In: Prognosis in Neurology. Butterworth-Heinemann, NY, 1998
- 42. <u>Rubenstein AE</u> and Lieberman F: Clinical Overview of Neurofibromatosis 2. In: Gann Monograph on Cancer Research 46: 1998
- 43. Maruyama K, Weaver M, Leppig KA, Farber R, Ortenberg J, <u>Rubenstein AE</u>, Immken L, Ccurry C and Stephens K: A quantitative PCR gene dosage assay to detect deletion of the NF-1 gene: Implications for molecular delineation of microdeletions. J. Am. Soc. Hum. Genetics 58: 1998
- 44. Lim DJ, <u>Rubenstein AE</u>, Evans DG et al: Advances in Neurofibromatosis 2 (NF2): A workshop report. J. Neurogenetics: 14(2):63-106, 2000.

- 45. Baser ME, Evans DG, Jackler RK, Sujansky E, <u>Rubenstein A.</u>, Neurofibromatosis 2, radiosurgery and malignant nervous system tumours., Br J Cancer. 2000 Feb;82(4):998.
- Packer RJ, Gutmann DH, <u>Rubenstein A</u>, Viskochil D, Zimmerman RA, Vezina G, Small J, Korf B.. Plexiform neurofibromas in NF1: toward biologic-based therapy. Neurology. 2002 May 28;58(10):1461-70
- 47. Fishbein L, Zhang X, Fisher LB, Li H, Campbell-Thompson M, Yachnis A, Rubenstein, A., Muir D and Wallace MR: In vitro studies of steroid hormones in neurofibromatosis 1 tumors and schwann cells: Molecular Carcinogenesis 28: 2007.
- 48. Wang, C., Barluenga, S., Koripelly, G.K., Fontaine, J., Chen, R., Yu, J., Shen, X., Chabala, J.C., Heck, J., <u>Rubenstein, A.</u> & Winssinger, N. (2009) Synthesis of pochoxime prodrugs as potent HSP90 inhibitors. Bioorg Med Chem Lett. 19, 3836-3840.
- 49. Evans, D.G., Kalamarides, M., Hunter-Schaedle, K., Blakeley, J., Allen, J., Babovic-Vuskanovic, D., Belzberg, A., Bollag, G., Chen, R., DiTomaso, E., Golfinos, J., Harris, G., Jacob, A., Kalpana, G., Karajannis, M., Korf, B., Kurzrock, R., Law, M., McClatchey, M., Packer, R., Roehm, P., Rubenstein, A., Slattery III, W., Tonsgard, R.H., Welling, B., Widemann, B., Yohay, K. & Giovannini, M. (2009) Consensus recommendations to accelerate clinical trials for neurofibromatosis type 2. Clin. Cancer Res. 15, 5032-5039.
- 50. ZhuH, Woolfenden S, Bronson RT, Jaffer ZM, BarluengaS, Winssinger N, Rubenstein AE, Chen R and Charest A.: The Novel Hsp90 inhibitor NXD3001 induces tumor regression in a genetically engineered mouse model of glioblastoma multiforme. Molecular Cancer Therapeutics, September 2010 9:2618-2623.
- 51. Tanaka K, EskinA, Careyre F, Jessen WJ, Mananet J, Niwa-Kawakita M, Chen R, White CH, Vitte J, Jaffer ZM, RubensteinAE and Giovannini M: Therapeutic potential of Hsp90 inhibition for Neurofibromatosis type 2. Clinical Cancer Research 19: 3856-3858, 2013
- 52. Cha JR, Kyle JH, Tradewell ML, Gentil BJ, Minotti S, Jaffer ZM, ChenR, Rubenstein AE, and Durham H: A novel small molecule HSP90 inhibitor, NXD 30001, differentially induces heat shock proteins in nervous tissue in culture and in vivo. Cell Stress and Chaperones. Published online October 3, 2013.
- 53. David F. Carney¹, Shyama Sidique,² Mira Sastri^{1,3}, Srinivasa Reddy Natala¹, Jeffrey W. Stebbins^{1,5}, Li Yang,² Pooi San Lee,² Daniel Brimberry,² Robert Ardecky,² Peter Teriete², Allan E. Rubenstein^{1,4}, Nicholas D.P. Cosford², and G. Sridhar Prasad¹: Efficacy of Dual-acting Inhibitors Targeting Hsp90 and TRAP1 in a Glioblastoma Cell Line. Submitted to Drug Design and Development, 2015.

ABSTRACTS

- 1. <u>Rubenstein AE</u>, Yahr MD and Mytilineou C: peripheral adrenergic hypersensitivity in orthostatic hypotension: The effects of denervation versus decentralization. Neurology 28: 376, 1978.
- 2. <u>Rubenstein, AE</u>, Horowitz SH and Bender AN: Cholinergic dysautonomia in the myasthenic (Easton-Lambert) syndrome. Neurology 28: 381, 1978.
- 3. <u>Rubenstein AE</u>, Mytilineou C and Horowitz SH: superficial catecholamine depletion in lepromatous leprosy with intact circulatory reflexes: Evidence for a temperature-linked distribution of autonomic neuropathy. Neuropathy. Neurology 30: 568, 1979.
- 4. <u>Rubenstein AE</u>, Ginsber-Fellner F, Korczyn AD, Witt MD, Horowitz SH, Mindel JS, Frontera AT and Lowe YH: Chronic autonomic neuropathy due to rodenticide ingestion. Neurology 29: 443, 1980.

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- 5. <u>Rubenstein AE</u>, Mytilineou C and Yahr MD: Adrenergic neurotransmitters in dermal neurofibromas: Implications for the pathogenesis and treatment of Neurofibromatosis. Neurology 30: 440, 1980.
- 6. <u>Rubenstein AE</u>, Korczyn AD, Yahr MD and Axeldord FB: The pupil in familial dysautonomia. Neurology 30: 440, 1980.
- 7. Pressman MR, Spielman AJ, Korczyn AD, Pollack CP, <u>Rubenstein AE</u> and Weitzman ED: Pupillary rhythms in normals and narcoleptics through the course of a day. Sleep Research, 9: March, 1980.
- 8. <u>Rubenstein AE</u>, Mindel JS, Korczyn AD and Perla CS: Iris nevi in Neurofibromatosis: evidence for a specific effect of puberty. Neurology 314: 64, 1981.
- 9. <u>Rubenstein AE</u>, Korczyn AD, Rayfield EJ and Thornton JC: the pupil in diabetes mellitus. Neurology 314: 194, 1981.
- 10. Bader JL and <u>Rubenstein AE</u>: Disseminated Neurofibromatosis in 1 of 2 monozygous twins. Neurology 314: 98, 1981.
- 11. Bader JL, Kanton AF and <u>Rubenstein AE</u>: Increased risk of cancer with neurofibromatosis. Proc. Amer. Sci. Clin.. Oncol. 22, 1981.
- 12. <u>Rubenstein AE</u>, Mytilineou C and Ladman R: Neurofibromas transplanted to the anterior chamber of the eye: An animal model for axon sheath cell trophic interactions in neurofibromatosis. Neurology 32, 1982.
- 13. <u>Rubenstein AE</u>, Mytilineou C and Ladman R: Successful treatment of pain in familial cutaneous leiomyomatosis with stellate ganglion block. Neurology 32. 1982.
- 14. Spence AM, Bader JL, Parry DL, Field LL, Funderburk SJ, <u>Rubenstein AE</u>, Gilman PA and Sparkes RS: Linkage analysis of Neurofibromatosis. American Society for Human Genetics, 1982.
- 15. Gudesblatt MS, Goodman AD and <u>Rubenstein AE</u>: Autonomic neuropathy in autoimmune disorders. Neurology 33, 1983.
- 16. <u>Rubenstein AE</u>, Korczyn AD and Yahr MD: Thermal salivation following Guillan-Barre syndrome: Evidence for abherrant regeneration of sympathetic cholinergic fibers. Neurology 33, 1983.
- 17. <u>Rubenstein AE</u>, Bader JL, Aron AA and Wallace S: Familial transmission for segmental Neurofibromatosis. Neurology 33, 1983.
- 18. <u>Rubenstein AE</u>, Ladman RK, Mytilineou C, Aron AA, Wallace S. and Stillman S: Nerve growth factor in neural tumors in disseminated Neurofibromatosis. Neurology 33, 1983.
- 19. <u>Rubenstein AE</u>, Bader JL, Pearson J. Buzhilovich G and Sun CJ: The association of smooth muscle tumors with neural crest tumors: Implication for the pathogenesis of Neurofibromatosis. Proc. American Soc. Clin. Oncol. 24, 1983.
- 20. Sonnenfeld KH, Bernd P, <u>Rubenstein AE</u>: Radioautographic identification of 125 I-nerve growth factor binding cells for neurofibromas. Sox. Neurosci. Abst. 10: 27, 1984.
- 21. <u>Rubenstein AE</u>, Aron AM and Wallace S: Adult presentation of Meningoceles in Neurofibromatosis, Neurology 34 (Suppl. 1): 168, 1984.
- 22. <u>Rubenstein AE</u>, Cohen LB, Aron AM and Wallace S: Primary mesenteric plexus alteration as a cause of megacolon in Neurofibromatosis. Neurology 34 (Suppl. 1) 211, 1984.
- 23. <u>Rubenstein AE</u>, Wallace S, Aron AM and Penchazadeh G: Neurological complications in 250 cases of Neurofibromatosis, Ann. Neurology 16 (1): 133, 1984.
- 24. <u>Rubenstein AE</u>, Seitz SC, Wallace S, Aron AM and Lebwohl M: Increased Risk of Congenital Pre-Malignant Melanocytic Nevi in Neurofibromatosis: Neurology 35 (Suppl. 1): 194, 1985
- 25. <u>Rubenstein AE</u>, Wallerstein R, Aron Rubenstein et al: Lack of correlation of megalencephaly with learning disability in disseminated Neurofibromatosis. Am. J. Hum. Genet. 37 (Suppl.): 214, 1985.

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- 27. <u>Rubenstein AE</u>, Taff I, Aron A and Wallace S Clustering of severe complications in 2 kindred with Neurofibromatosis 1: Neurology 37, (Suppl. 1): 132, 1987.
- 28. Aron A, <u>Rubenstein AE</u> and Wallace S: Optic glioma in children with NF. Ann. Neurology 19: 862, 1987.
- 29. <u>Rubenstein AE</u>, Wallace S, Aron A and Halperin J: Severe Pruritus in a Case of NF1, American Society of Human Genetics, NNFF Clinical Care Conference, San Diego, 1987.
- 30. <u>Rubenstein AE</u>, Huang P, Kugler S, Wallace S, Sassower K, Aron A and Halperin J: Unidentified Signals on Magnetic Resonance Imaging in children with Neurofibromatosis: Neurology 38, (Suppl. 1): 282, 1988.
- 31. <u>Rubenstein AE</u>, Halperin J, Aron A, Wallace S and Sassower K: NF 1 and 2: Distinct Genotypes with Overlapping Phenotypes: Am. J. Hum. Genet. 45 (3) Suppl.: 195, 1988.
- 32. <u>Rubenstein AE</u>, Halperin J, Siezenger B and Bader J: A Possible Double Dose Family of NF1, NNFF 10th Anniversary Research Symposium, NY 1988.
- 33. <u>Rubenstein AE</u>, Wallace S, Aron A, Kugler S and Halperin J: UBO's on MRI in NF1: American Society of Human Genetics, NNFF Clinical Care Symposium, New Orleans, 1988.
- 34. Aron A, <u>Rubenstein AE</u>, Wallace S, Kugler S and Halperin JC: Optic Glioma in NF11: The Mt. Sinai NF Center Experience. National NF Foundation Conference on Optic Gliomas in NF, New York, 1989.
- 35. <u>Rubenstein AE</u>, Halperin JC, Mindel J, Wallace S and Aron A: Lisch Nodules in neurofibromatosis-1 are not Dependent on Sympathetic Intervention. Am. J. Hum. Genet. 47 (3) Suppl.: A76, 1990.
- 36. <u>Rubenstein AE</u>, Wallace S, Aron A, Nizam M, Halperin J, & Wolfe D.: Post-Radiation Malignancy in Neurofibromatosis 2 American College of Medical Genetics, NNFF Clinical Care Conference, Los Angeles, 1995.
- 37. Baser ME, MacColin NM, Sujansky E, Evans DGR and <u>Rubenstein AE</u>: Malignant nervous system tumors in patients with NF2. Fed. Amer. Soc. Exp. Biol. Summer Research Conference on NF, Aspen, 1996.
- 38. <u>Rubenstein AE</u>, Luce N, Wallace S, Nizam F. and Aron A: Multiple de novo mutations in the NF1 gene in a kindred demonstrated by protein truncation assay. Fed. Amer. Soc. Exp. Biol. Summer Research conference on NF, Aspen, 1996.
- 39. <u>Rubenstein AE</u>, Luce M, Wallace S and Davis L: Absence of abnormality on protein truncation assay for NF1 mutation in 2 cases of Proteus syndrome: Further evidence that the Elephant Man did not have NF1. Fed. Amer. Soc. Exp. Biol. Sumer Research Program on NF, Aspen, 1996.

BOOKS

- 1. Neurofibromatosis: edited by <u>Allan E. Rubenstein</u>, Richard P. Bunge and David E. Housman. New York Academy of Sciences, NY, 1986.
- 2. Neurofibromatosis: A Handbook for Patients, Families and Health Care Professionals. Edited by <u>Allan E. Rubenstein</u> and Bruce R. Korf. Thieme-Stratton, NY, 1990.
- 3. Neurofibromatosis: A Handbook for Patients, Families and Health Care Professionals.2nd Edition. Bruce R. Korf and Allan E. Rubenstein, Thieme, NY, 2005.

INVITED LECTURES AND NON PUBLISHED PAPERS PRESENTED AT NATIONAL CONFERENCES

- 1. Columbia-Presbyterian Medical Center, NY, Neurology Grand Rounds: Acute Autonomic Neuropathy, 1981.
- 2. Massachusetts General Hospital, Boston, Neurofibromatosis Symposium, Department of Neurosurgery: Theoretical Aspects of Neurofibromatosis, 1982.
- 3. National Institute of Health, Bethesda, Interdepartmental Genetics Conference: A Possible Double Dose Family with Neurofibromatosis, 1982.
- 4. National Cancer Institute, U.S. Japan Cooperative Cancer Program: Workshop on Neural Crest Tumors, Honolulu, 1982.
- 5. Yale University School of Medicine, New Haven, Neurofibromatosis Symposium, Department of Genetics: Neurofibromatosis: An Overview, 1984.
- 6. University of California at San Diego, San Diego, Neurofibromatosis Symposium, Department of Genetics: Neurofibromatosis Aspects of Neurofibromatosis, 1985.
- 7. University of Medicine and Dentistry of New Jersey, Rutgers, Neurology Grand Rounds: Neurofibromatosis, 1985.
- 8. North Shore University Hospital, Great Neck, Neurofibromatosis Symposium, Department of Genetics: Current Research in Neurofibromatosis, 1986.
- 9. Israel Neurological Society Annual Meeting, Tel Aviv, Invited Guest Lecture: Current Research in Neurofibromatosis, 1986.
- 10. Tulane University School of Medicine, New Orleans, Neurofibromatosis Symposium, Department of Genetics: Current Research in Neurofibromatosis, 1986.
- 11. Albany Medical College, Albany, Neurofibromatosis Symposium, Department of Rehabilitation Medicine: A Clinical Review of Neurofibromatosis, 1986.
- 12. University of Medicine and Dentistry of New Jersey, Newark, Neurology Grand Rounds: Neurofibromatosis, 1987.
- 13. 1st European Conference on Neurofibromatosis Sponsored by the British Neurofibromatosis Foundation: Neurofibromatosis: An Overview, 1987.
- 14. University of Indiana Medical Center, Indianapolis, Visiting Professor in Neurology, Neurology Grand Rounds: Neurologic Aspects of Neurofibromatosis, 1987.
- 15. University of Cincinnati Medical Center, Cincinnati, Department of Genetics: Review of Current Research in Neurofibromatosis, 1987.
- 16. The Salk Institute, La Jolla, Department of Neurosciences: Neurofibromatosis: the Clinical Problems, 1987.
- 17. University of South Florida Medical School, Tampa, Department of Genetics, Neurofibromatosis Symposium: Current Research in Neurofibromatosis, 1987.
- 18. Columbia-Presbyterian medical center, New York, Orthopedic Grand rounds: Orthopedic Aspects of Neurofibromatosis, 1987.
- 19. National Institute of Health, Bethesda, Consensus Development Conference on Neurofibromatosis: Variant Forms of Neurofibromatosis, 1987.
- 20. Booth Memorial Hospital, Queens, Pediatric Grand Rounds: Neurofibromatosis in Children, 1988.
- 21. The Cleveland Clinic, Cleveland, Department of Neurology, Neurofibromatosis Symposium: Neurologic Aspects of Neurofibromatosis, 1989.
- 22. Hackensack Medical Center, Hackensack, Pediatric Grand Rounds: Neurofibromatosis: Current Status, 1989.
- 23. Memorial Sloane-Kettering Hospital, New York, Pathology Seminar: Neurofibromatosis: An Update, 1990.

- 24. California Chapter NNFF Symposium, Los Angeles: Neurolgoic Aspects of Neurofibromatosis, 1990.
- 25. National Association for Research in Neurologic Disorders, Washington, D.C." Research in Neurofibromatosis: The Next Decade, 1990.
- 26. First German Symposium on Neurofibromatosis, Sponsored by the German Neurofibromatosis Foundation, Hamburg: Neurofibromatosis Research: An Overview, 1990.
- 27. Cold Spring Harbor Conference, Cold Spring Harbor, Research Directions in Neurofibromatosis: Sympathetic Influences on Development of the Neurofibromatosis Phenotype, 1990.
- 28. University of Washington Medical Center, Seattle, Visiting Professor in Genetics: Phenotype Diversity in Neurofibromatosis, 1990.
- 29. Society for Neuroscience Annual Meeting, St. Louis, Neurofibromatosis Symposium: Neurofibromatosis The Clinical Problem, 1990.
- 30. Rockefeller University, New York, Department of Dermatology: Neurofibromatosis: A Clinical Overview and Research Update, 1990.
- 31. Albert Einstein School of Medicine, New York, Neurology Grand Rounds: Neurofibromatosis, 1991.
- 32. World Health Organization Conference on Neurofibromatosis, Jacksonville, Neurofibromatosis: Incidence and Distribution, 1991.
- 33. Medical Center of Delaware, Wilmington, Neurology Grand Rounds: Neurofibromatosis, 1991.
- 34. American Academy of Neurology Annual Meeting, Boston, Seminar: Neurofibromatosis; From Clinical Phenotypes to the Genes, 1991.
- 35. University of Medicine and Dentistry of New Jersey, Rutgers, Neurology Grand Rounds: Neurofibromatosis update, 1992.
- 36. University of Medicine and Dentistry of New Jersey, Newark, Neurology Grand Rounds: Neurofibromatosis Update, 1992.
- 37. 2nd European Conference on Neurofibromatosis, Vienna: NF: A Clinical Overview, 1992.
- 38. International Congress of Dysmorphology, Strasbourg: Historical Aspects of NF1 and NF2, 1993.
- 39. International NF Association Conference, Hong Kong: Neurological Aspects of NF-1, 1994.
- 40. Jikei University, Tokyo: Neurological Aspects of NF-1, 1994.
- 41. Fifth European Neurofibromatosis Symposium, University of Leuven, Belgium: Recent Advances in NF-1 and NF-2, 1995.
- 42. Fifth European Neurofibromatosis Symposium, University of Leuven, Belgium: Post-radiation malignancy in NF-2, 1995.
- 43. Beijing University, Beijing: NF-1: A Clinical Overview, 1995.
- 44. Cold Spring Harbor Banbury Conference, Cold Spring Harbor, Developing Therapies for Neurofibromatosis: NF-1 Treatment: Data and Data Collection, 1995.
- 45. Neuro-otology New York 1996 (CME Conference) NF-2: An Update.
- 46. UCSD, Children's Hospital, San Diego: Mini Seminar LVII: NF Overview and Recent Developments, 1995.
- 47. Sarah Larence College, New York, Graduate Program in Human Genetics: NF: An Update, 1997.
- 48. Manhattan Eye, Ear and Throat Hospital, New York. Otolaryngology Grand Rounds: NF-2, 1997.
- 49. Lenox Hill Hospital, New York, Pediatric Grand Rounds: NF: An Overview, 1998.
- 50. NYU Medical Center. Neurology Grand Rounds: Advances in genetic diagnosis of NF-1 and NF-2, 1998.

- 51. 12th European Symposium on Neurofibromatosis, Lisbon, 2007: NX101: Development of a non-surgical treatment for dermal neurofibromas in neurofibromatosis type 1.
- 52. Chen, R., Yu, J.C., Shen, X.D., <u>Rubenstein, A.E.</u>, Tsutsumi, S., Beebe, K., Neckers, L., Barluenga, S., Wang, C., Fontaine, J., KaAouadi, K., and Winssinger, N. Pochoximes, potent Hsp90 inhibitors with in vivo activities. 4th international conference on The Hsp90 Chaperone Machine October 2-6th, 2008, Seeon, Germany.
- 53. Panday, U., Cha, J., Jaffer, Z.M., Chen, R., Durham, H., Taylor, J.P., Winssinger, N., and <u>Rubenstein, A.E.</u> Proof-of-concept for a novel small molecule Hsp90 inhibitor for aging-related diseases. 13th Congress of the International Association of Biomedical Gerontology, 2009, Quebec City, Canada
- 54. Third International Research Workshop on Frontotemporal Dementia in ALS. Sunday June 21
 Thursday June 25, 2009. London, Ontario, Canada. Inhibitors as Potential Therapeutic Agents in ALS
- 55. Cha, J., Pandey, U., Zhu, H., Jaffer, Z. M., Chen, R., Charest, A., Taylor, J. P., Durham, H. D., Winssinger, N., and <u>Rubenstein, A.E.</u> A novel small molecule Hsp90 inhibitor: Applications for diseases of the nervous system. Gordon Conference: Stress Proteins in Growth, Development & Disease, 2009, Proctor Academy, Andover, NH.
- 56. Lukyanov, E., Chen, R., Zaffer, Z.M., Winssinger, N., Rubenstein, A.E., Zagzag, D., and Newcomb, E.W. Hsp90 inhibitor NXD30001 increased survival of GL261 glioma bearing mice. Joint Meeting of the Society for Neuro-Oncology and the AANS/CNS Section on Tumors, 2009, New Orleans, Louisiana.
- 57. Pandey, U., Jaffer, Z.M., Chen, R., Taylor, J. P., Winssinger, N., and <u>Rubenstein, A.E.</u> Proof-of-concept for a novel small molecule Hsp90 inhibitor for SBMA. Motor Neurone Disease Association, International Symposium on ALS/MND, 2009, Berlin, Germany.
- 58. Durham, H.D., Cha, J., Jaffer, Z. M., Chen, R., Winssinger, N., and <u>Rubenstein, A.E.</u> Evaluating the therapeutic potential of a novel small molecule Hsp90 inhibitor for motor neuron diseases. Motor Neurone Disease Association, International Symposium on ALS/MND, 2009, Berlin, Germany
- 59. <u>Rubenstein, A.E.</u>, Pandey, U, Jaffer, ZM, Chen, R., Barluenga, S., Winssinger, N., and Taylor, J.P Proof-Of-Concept for a novel small molecule Hsp90 inhibitor for spinal and bulbar muscular atrophy (SBMA). American Academy of Neurology, 62nd Annual Meeting, 2010, Toronto, Canada.
- 60. Chen, R., Tanaka, K., Jaffer, Z.M., Winssinger, N., Giovannini, M. and <u>Rubenstein, A.E.</u> Targeting a chaperone for Neurofibromatosis Type 2. House Ear Institute and Children's Tumor Foundation, NF2 State of the Clinical Trial Meeting, 2010, Las Vegas, Nevada.
- 61. Karo, T., Jaffer, Z.M., Chen, R., Winssinger, N. <u>Rubenstein, A.E.</u> and Giovannini, M. Therapeutic potential for a novel Hsp90 inhibitor, NXD30001, for NF2. Children's Tumor Foundation, Annual Conference, 2010, Baltimore, Maryland.
- 62. Commencement Address, Fredonia High School, held at SUNY Fredonia. 2015