

RICHARD J. ALLEN, M.D.  
(6-04-99)

## CURRICULUM VITAE

### PERSONAL DATA

Name: Richard J. Allen, M. D.  
PO BOX 0202/L3222 Women's  
University Hospitals  
Ann Arbor, MI 48109

### EDUCATION

1942 South Lake High School, St. Clair Shores, Michigan  
1945 University of Michigan, B.S.  
1949 University of Michigan, M. D.  
1953 University of Michigan, M. S.

### POSTDOCTORAL TRAINING

1949-52 Pediatric Residency, University of Michigan  
1952-53 M.S. (Neuroanatomy), University of Michigan, National  
Cerebral Palsy Fellowship  
1955-56 NINDB (I) Fellowship in Pediatric Neurology  
Department of Neurology, Neurological Institute  
Columbia Presbyterian Medical Center, New York  
1957-58 Neurology Fellow, Department of Neurology  
University of Michigan (NINDB Training Grant, II)

### ACADEMIC APPOINTMENTS

1957-58 Instructor, Department of Pediatrics, The University of  
Michigan  
1958-62 Assistant Professor, Department of Pediatrics, The  
University of Michigan  
1962-68 Associate Professor, Department of Pediatrics, The University of  
Michigan

1968-- Professor, Department of Pediatrics, The University of Michigan  
 1968 Director, Pediatric Neurology, Department of Pediatrics, The University of Michigan  
 1980-- Professor of Pediatrics in the Department of Neurology, The University of Michigan  
 1995-1999 Professor, Emeritus (active), Department of Pediatrics and Department of Neurology

#### CONSULTING POSITIONS

1970 - present Bureau of Personal Health Services, Michigan Department of Public Health, Marquette Pediatric Neurology Clinics  
 1975-1995 Michigan Department of Mental Health, Residential Facilities

#### GRANT SUPPORT

##### Previous:

NIH, PKU Management grant  
 1965-1987

Principal Investigator, Pediatric Neurology Metabolic Disease Clinic, Michigan Department of Public Health. Management of PKU, Galactosemia, Maple Syrup Urine Disease, Biotinidase Deficiency.  
 1987-1995

Midwest Regional Network: Management in Maternal PKU, R. Matalon, Coordinator, University of Illinois, Chicago, SPRANS Grant, for Collaborating Centers (Michigan: member of 14 state consortium)--funds for data collection, management protocols for pregnant adult women with PKU as part of a National Collaborative NIH supported Four Region Project.

PET studies in PKU, MDPH and NIH (to PET Center), 1985.

##### Current:

Principal Investigator, Pediatric Neurology Metabolic Disease Clinic, Michigan Department of Public Health. Management of PKU, Galactosemia, Maple Syrup Urine Disease, Biotinidase Deficiency.  
 October 1, 1998 - September 30, 1999

## CERTIFICATION AND LICENSURE

1953 Medical License, Michigan  
 1955 Certified, Pediatrics  
 1958 Board Qualified, Neurology  
 1986 American Academy of Neurology, CERC Certificate  
 1994 & 1996 CLIA certification, Pediatric Neurology Metabolic Laboratory  
 1998 State of Michigan Department of Consumer & Industry Services  
 CLIA Certification, Pediatric Neurology Metabolic Laboratory  
 (4-14-98)

## MILITARY SERVICE

1953-55 Captain USAF, Honorable Discharge

## MEMBERSHIPS AND OFFICES IN PROFESSIONAL SOCIETIES

Child Neurology Society (President 1976-77; Secretary-Treasurer  
 1972-75)  
 Society for Pediatric Research (Emeritus)  
 Central Society for Neurological Research (Emeritus)  
 Association for Research in Nervous and Mental Disease  
 Midwest Society for Pediatric Research (Emeritus)  
 American Epilepsy Society  
 American Academy of Neurology  
 American Academy of Pediatrics  
 American Medical Association  
 Central Association of Electroencephalographers  
 Michigan Neurological Association  
 Society for Inherited Metabolic Disease  
 International Society for Neonatal Screening (Charter Member,  
 1988)

## AWARD

1999

American Association on Mental Retardation. 199 Robert Guthrie  
 Award for Advances in Biochemical and Molecular Genetics,  
 May 27, 1999, New Orleans, LA.

## CLINICAL ACTIVITIES

### University of Michigan

Pediatrics  
 1968-1980

Director, Pediatric Neurology & PKU newborn screening  
 clinical and laboratory program.

1980-1995

Attending Pediatric Neurology, and Director Pediatric  
 Neurology Metabolic Clinic and Laboratory

## TEACHING ACTIVITIES

- Sept 1965 "The diagnosis of phenylketonuria", presented before the Michigan State Medical Society, Detroit, Michigan
- April 1966 "The diagnosis and treatment of brain stem gliomas in children", presented before the Texas Medical and Neuropsychiatric Section, Austin, Texas
- April 1966 "Psychomotor seizures and disorders of behavior in temporal lobe defects in childhood", presented before the Texas Medical and Neuropsychiatric Section, Austin, Texas
- April 1967 "Genetic counseling in mental retardation", presented before the Fourth National Workshop for Nurses in Mental Retardation and The Child Development Center, University of Miami
- April 1967 "Recent research in PKU", presented before the Spring meeting of the Michigan Dietetic Association
- May 1969 "Neurological diseases: their management and rehabilitation", presented before Postgraduate Meetings at the University of Michigan
- Mar 1970 "Metabolic disorders of the CNS", presented at Postgraduate Conference: New Perspectives in Neonatology, University of Michigan
- Mar 1970 "Convulsions in the newborn", presented at Postgraduate Conference: New Perspectives in Neonatology, University of Michigan
- May 1970 "Metabolic disease and mental retardation--a review of the 1960's--is it worth it?", presented before the Florida Medical Association, Bar Harbor, Florida
- Oct 1970 "Neurocutaneous syndromes of childhood", Postgrad Med 50:83, 1971. Presented before Pediatric Neurology Postgraduate Continuation Course, University of Minnesota
- Mar 1971 "Brain damaged children", presented before the Symposium for Classroom Teachers, sponsored by Child Appraisal Center of Wyandotte General Hospital and Wayne County Intermediate School District, Wyandotte, Michigan

- May 1971 "Central nervous system disorders", presented at Postgraduate Medical Conference: The Child With a Limp, University of Michigan
- July 1971 "Classification and treatment of childhood convulsive disorders", presented before Michigan Academy of General Practice, Harbor Springs, Michigan
- Sept 1971 "Treatment of PKU disease", presented before Michigan Society of Medical Technologists, Midland, Michigan,
- Nov 1971 "Neurocutaneous disorders", presented before the Western Michigan Pediatric Society, Kalamazoo, Michigan
- Sept 1979 "Memory in Children", New York Medical Society, Section of Neurology, New York
- July 1980 "Movement disorders", Michigan Academy of Pediatrics, Bay City, Michigan
- Mar 1989 "Impact of seizures in person with developmental disabilities", 5th Annual Conference on Developmental Disabilities, Michigan Inn, Southfield, Michigan
- Mar 1990 "Movement disorders: updated and new treatment", 6th Annual Conference on Developmental Disabilities, Michigan Department of Mental Health, Sheraton Hotel, Southfield, Michigan
- June 1990 "Pathophysiology", Endocrinology Grand Rounds, Cleveland Clinic Foundation, Cleveland, Ohio
- Mar 1991 "Movement disorders: updated and new treatment", 7th Annual Conference on Developmental Disabilities: Advocacy through clinical excellence, Michigan Department of Mental Health, Novi Hilton, Novi, Michigan
- May 1991 "Pediatric Dementias", Neurology-Neurosurgery Grand Rounds, Henry Ford Hospital, Detroit, Michigan
- Sept 1991 "Approach to inborn errors of metabolism", Pediatric Grand Rounds, Hurley Medical Center, Flint, Michigan
- Mar 1992 "Movement disorders: updated and new treatments", 8th Annual Conference on Developmental Disabilities: Advocacy through clinical excellence, Michigan Department of Mental Health, Novi Hilton, Novi, Michigan
- May 1994 "Childhood migraine", Pediatric Journal Club, Hurley Medical Center, Flint, Michigan

- Sept 1994 "Galactosemia", Newborn Screening in the 21st Century and Sickle Cell Conference sponsored by University of Wisconsin Medical School and The Great Lakes Regional Genetics Group, Chicago, Illinois
- Mar 1995 "Neonatal Galactosemia (NGALT)" Impact on Newborn Screening of Early Hospital Discharge Conference, Washington, D.C., March 31-April 1, 1995. Eds: K.A. Pass and H. L. Levy. Published by the Council of Regional Networks for Genetic Services, May 1995, 167-200
- May 1995 "Neurological Effects of Metabolic Disease", Pediatric Grand Rounds, Hurley Medical Center, Flint, Michigan
- June 1995 "Baby Cassandra Syndrome", Midwest Metabolic Network Conference, Oak Brook, Illinois
- Oct 1995 "New technology in brain chemistry in metabolic disorders", Association for Neuro-Metabolic Disorders XIV Parent Forum: Experiences with Metabolic Disorders, Ann Arbor, Michigan
- Nov 1995 "Biochemical vs clinic diagnosis of metabolic disorders in infants and children", Meeting of the AACC, Beaumont Hospital, Royal Oak, Michigan
- April 1998 "Neurodegenerative Disabilities - Recognition, Management, and Special Treatment (do Lorenzo's Oil, Ketogenic, and PKU Diets work?)". 14th Annual Conference on Developmental Disabilities, Michigan Department of Mental Health, Kellogg Center for Continuing Education, East Lansing, Michigan.

#### OTHER SCIENTIFIC ACTIVITIES

- 1969 Visiting Professor, University College Hospital, London, England, C. Dent, Director, Metabolic Laboratory
- 1970-- Professional Advisory Council UCPA of Michigan, (Chairman, 1972-1974)
- 1975-85 State of Michigan Developmental Disabilities Council (DDC) (Governor Appointed) (Executive Committee 1977-1981)
- 1975-76 Amino Acid Subcommittee, American Academy of Pediatrics, Section of Neurology
- 1976-77 Section of Child Neurology, American Academy of Neurology
- 1979-- Tuberos Sclerosis Association of America, Inc., Scientific Board

- 1980-81 Training Program Committee, Child Neurology Society
- 1981-82 Visiting Professor of Neurology, Columbia Presbyterian Medical Center, Department of Neurology, Neuromuscular Research, Laboratory (Sabbatical ) October, 1981 - April, 1982
- 1982-84 Chairman, Health Services Committee, Michigan State, Developmental Disabilities Council (Department of Mental Health)
- 1982-- Midwest Regional Metabolic Disorder Network, Member (Midwest Regional Metabolic Disorder Network, Conference, Ann Arbor, Michigan, June 1, 1985)
- 1985-- Advisory Board, The Michigan Drug Letter
- 1985-88 Anticonvulsant Drug Use Committee, Michigan Department Mental Health
- 1985-- Michigan State Genetics Advisory Committee and Department of Public Health Newborn Screening Committee
- 1985-- Midwest Regional Genetic Services Network, Member and Newborn Screening Subcommittee
- 1979-- Director, Pediatric Neurology Metabolic Laboratory

## **BIBLIOGRAPHY**

### Completed Publications in Scientific Journals

#### Peer Reviewed Publications

1. Allen RJ: Para-aminosalicylic acid: a review. UM Med Bull 17:367, 1951.
2. Wark S, Allen RJ, Tsao MU: Simultaneous determinatives of paraaminosalicylic acid and promizole. J Lab & Clin Med 40:649, 1952.
3. Allen RJ, Towsley H, Wilson JL: Neurogenic stridor in infancy. Amer J Dis Child 87:179-191, 1954.
4. Allen RJ: The detection and diagnosis of Phenylketonuria. Amer J Public Health 50:1662, 1960.
5. Allen RJ, Lowrey GL, Wilson JL: The search for Phenylketonuria in Michigan. J Mich Med Soc 59:1809-1811, 1960.

6. Allen RJ Gibson RM: Phenylketonuria with normal intelligence. Amer J Dis Child 102:115, 1961.
7. Allen RJ, McCusker JJ, Tourtellotte WW: Metachromatic leukodystrophy: clinical, histochemical and cerebrospinal fluid abnormalities. Pediatrics 30:629-638, 1962.
8. Allen RJ Heffelfinger JC, Masotti RE, Tsau MU: Phenylalanine hydroxylase activity in newborn infants. Pediatrics 33:512-525 1964.
9. Allen RJ, Wilson, JL: Urinary phenylpyruvic acid in Phenylketonuria. JAMA 188:720-724 1964.
10. Friede RL, Allen RJ: Enzyme histochemical studies of Tay-Sachs disease. J Neuropath & Exper Neurol 23:619-634, 1964.
11. Wolter JR, Allen RJ: Retinal neuropathology of late infantile amaurotic idiocy. Brit J Ophthal 48:277-284 1964.
12. Heffelfinger JC, Allen RJ: Neurotoxicity with nitrofurantoin. A case report. J Pediatr 65:611, 1964.
13. Allen RJ: Phenylalanine levels. NEJM 270:1367, 1964.
14. Tourtellotte WW, Allen RJ, Haerer AF, Bryan ER: Study of lipids in cerebrospinal fluid and serum. Arch Neurol (Chicago) 12:300-310, 1965.
15. Weinstein AW, Allen RJ: Ethosuximide treatment of petit mal seizures. A study of 87 pediatric patients. Amer J Dis Child 11:63-67, 1966.
16. Allen RJ: Diagnosis and treatment of convulsive disorders in children. J Med Assn of Georgia 54:330-335, 1965.
17. Allen RJ: Treatment of status epilepticus in children. Univ Med Cen 31:181, 1964.
18. Foote JL, Allen RJ, Agranoff BW: Fatty acids in esters and cerebrosides of human brain in Phenylketonuria. J Lipid Res 6:518-524, 1965.
19. Terr AL, Allen RJ, Vanselow NA: Immunologic responsiveness in Phenylketonuria. JAMA 198:1185, 1966.
20. Holt JF., Allen RJ: Radiologic signs in the primary aminoacidurias. Ann Radiol (Paris) 10:317-321, 1967.
21. Allen RJ: Editorial Comments on: clinical observations in Phenylketonuria. Yearbook of Peds p. 60, 1966-67.
22. Allen RJ: Book Review: Mongolism (Ciba Foundation Study Group No. 25) Mich Med 66:1363, 1967.



23. Allen RJ, Tourtellotte WW, Adriaenssens K, et al: Carnosinaemia. Lancet 1:1249, 1968.
24. Salguero LF, Itabashi HH, and Allen RJ: Some neuropathological observations in Phenylketonuria. Trans Amer Neuro Assn 93:274, 1968.
25. Corssen G, Groves E, Gomez S and Allen RJ: Ketamine: its place in anesthesia for neurosurgical diagnostic procedures. Anesthesia and Analgesia 48:181-188, 1969.
26. Read KS, Allen RJ, Haddy TB: Phenylketonuria in newborns. Mich Med 68:691-697, 1969.
27. Adrianessens K, Allen RJ, Lowenthal A, et al.: Brain and cerebrospinal fluid free amino acids in Phenylketonuria. J Genet. Hum 17:223, (Cit. No. 5210124), 1969.
28. Allen RJ: Pediatric update: epilepsy in children. J Ped Ophthal 7:133, 1970.
29. Buchanan R, Allen RJ: Dilantin and Phenobarbital blood levels in epileptic children. Neurology 21:866-871, 1971.
30. Allen RJ: Neurocutaneous syndromes in children. Postgrad Med 50:83-90, 1971 .
31. Zweifler AJ, Allen RJ: Abnormal platelet aggregation in patients with Homocystinuria. Circulation 40, Suppl III: 27, 1969.
32. Zweifler AJ, Allen RJ: An intrinsic blood platelet abnormality in an homocystinuric boy, corrected by pyroxidine administration. Thrombosis et Diathesis Haemorrhagica 26:15-21, 1971.
33. Allen RJ, Frey JH, Fleming LM, Owings CL: Semi-quantitation of leucine, isoleucine, and valine by thin-layer chromatography in management of Maple Syrup Urine Disease. Clin Chem 18:413-416, 1972.
34. Noel MM, Stanley P, Girz J, Allen RJ: The dietary treatment of Maple Syrup Urine Disease (Branched chain amino aciduria). J Am Dietet A 69:62, July, 1976.
35. Seigel RS, Seeger JF, Gabrielsen TO, Allen RJ: Cerebral computed tomography in oculocranosomatic disease (Kearns-Sayre Syndrome). Radiology 130:159-164, 1979.
36. Zipf WB, Hieber VC, Allen RJ: Valine toxic intermittent maple syrup urine disease (MSUD), a previously unrecognized variant. Pediatrics February, 63:286-294. 1979.
37. Bertoni JM, von Loh S, Allen RJ: The Aicardi syndrome: a report of 4 cases and review of the literature. Annals of Neurology 5:475-482, 1979.

38. Kirk T, Allen RJ: Hyperphenylalaninemia and pregnancy. Lancet (Nov) ii: 1140, 1979.
39. Coulter DL, Allen RJ: Pancreatitis associated with valproic acid therapy for epilepsy. Annals of Neurology 7:92, 1980.
40. Coulter DL, Wu H, Allen RJ: Valproic acid in childhood epilepsy. JAMA 244:785-788 1980.
41. Erickson RP, Wooliscroft J, Allen RJ: Familial occurrence of intracranial arterial disease (moyamoya) in neurofibromatosis. Clinical Genetics 18:191-196, 1980.
42. Coulter DL, Allen RJ: Secondary hyperammonemia: a possible mechanism for valproate encephalopathy. Lancet i:1310-1311, 1980.
43. Allen RJ: Cortical blindness in a child after anesthesia (Questions and Answers Section) JAMA 243:1187, 1980.
44. Allen RJ, Coulter DL: Valproic acid induced pancreatitis in children. Pediatrics 65:1187, 1980.
45. Coulter DL, Allen RJ: Abrupt neurological deterioration in children with Kearns-Sayre syndrome. Arch Neurol 8:247-250, 1981.
46. Coulter DL, Allen RJ: Hyperammonemia with valproic acid therapy. J Pediat 99:317-319, 1981.
47. Coulter DL, Allen RJ: Benign neonatal sleep myoclonus. Arch Neurol 39:191-192, 1982.
48. Coulter DL, Beals TF, Allen RJ: Neurotrichosis: hair shaft abnormalities with neurological disease. Dev Med Child Neurol 24:634-644, 1982.
49. Allen RJ, Hansch D, Wu H: Hypocarnitinemia in disorders of organic acid metabolism. Lancet (Letter) 2:500, 1982.
50. Wolf B, Grier R, Parker WD, Goodman S, Allen RJ: Deficient biotinidase activity in late-onset multiple carboxylase deficiency. NEJM (Letter) 308:161, 1983.
51. Allen RJ, Schwartz E, Hufstetler RD: PKU diet termination at age 3 years: psychological stability with variable neurological effects. Excerpta Medica, Proceedings of the International Meeting on Neonatal Screening for Inborn Errors of Metabolism, Tokyo, Congress Series No. 606, Elsevier Science Publishing Co., pp. 229-230, 1983.
52. Young RSK, Coulter DL, Allen RJ: Capsular stroke as a cause of hemiplegia in infancy. Neurology 33:1044-1046, 1983.

53. McCabe ERP, McCabe L, Mosher GA, Allen RJ, Berman JL: Newborn screening for Phenylketonuria: Predictive validity as a function of age. Pediatrics 72:390-398, 1983.
54. Allen RJ, DiMauro S, Coulter DL, Papadimitriou A, Rothenberg S: Kearns-Sayre syndrome with reduced plasma and CSF folate. Annals of Neurology 13:679-682, 1983.
55. Wolf B, Grier RE, Allen RJ, Goodman SI., Kien CL, Parker WD, Howell DM: Phenotypic variation in biotinidase deficiency. Journal of Pediatrics 103:233-237, 1983.
56. Wolf B, Grier RE, Allen RJ, Goodman SI, Kien CL: Biotinidase deficiency: the enzymatic defect in late-onset multiple carboxylase deficiency. Clin. Chem. Acta 131:273-281, 1983.
57. Rabinovitch MA, Kalff V, Allen RJ, Rosenthal A, et al.: w-<sup>123</sup>I-Hexadecanoic acid metabolic probe of cardiomyopathy. Eur J Nucl Med 10:222-227, 1985.
58. Allen RJ.: Valproic acid therapy. AJDC (Letter)139:648-650, 1985.
59. Penner MW, Li KC, Gebarski SS Allen RJ: MR imaging of Pelizaeus-Merzbacher Disease. J Comput Assist Tomogr 11:591-593, 1987.
60. Allen RJ : Genetic Counseling for Phenylketonuria (Letter). J of :683-685, 1989.
61. Allen RJ: Jaundice in the Newborn and the Baby Cassandra Syndrome (Letter). Pediatrics 91:167-168, 1993.
62. Ng WG, Xu YK, Cowan TM, Blitzer MG, Allen RJ, et al: Erythrocyte uridine diphosphate galactose-4-epimerase deficiency identified by newborn screening for galactosemia in the United States. Screening 2:179-186, 1993.
63. Allen RJ, Schaefer AM, Jacobson J: Diet Treatment in Galactosemia (Letter). J Am Diet Assoc 93:1102-1103, 1993.
64. Allen RJ: Dextromethorphan in nonketotic hyperglycinemia (Letter). Neurology 43:2422-2423, 1993.
65. Kaul R, Matalon R, Allen RJ, Fisch RO, Michals K, Petrosky A, and Sullivan D: Frequency of 12 Mutations in 114 Children with Phenylketonuria in the Midwest Region of the USA. J Inher Metab Dis 17:356-358, 1994.
66. Allen RJ, Brunberg J, Schwartz E Schaefer AM , Jackson G: MRI Characterization of cerebral dysgenesis in MPKU. Phenylketonuria -Past, Present, and Future. Acta Paediatr Suppl 407:83-85, 1994.

67. Allen RJ, Schwartz E, Brunberg J: Neurological outcome of neonatal galactosemia before and after newborn screening (NBS) in a statewide regional program. 10th National Neonatal Screening Symposium, (1994) Proceedings. pages 93-98, Published May, 1995,.
68. Ng WG, Xu YK., Kaufman FR, Donnel GN, Wolff J, Allen RJ, Koritala S, Reichardt JKV: Biochemical and molecular studies of 132 patients with galactosemia. Hum Genet 94:359-363, 1994.
69. Allen RJ: Window in clouds over galactosemia? (Letter). Lancet 345:128, 1995.
70. Shiang R, Ryan SG, Zhu YZ, Fielder TJ, Allen RJ Fryer A Yamashita S, O'Connell P, Wasmuth J: Mutational analysis of familial and sporadic hyperekplexia. Annals of Neurology 38:85-91, 1995.
71. Maceratesi P, Daude N, Dallapiccola B, Novelli G, Allen R, Okano Y, Reichardt J: Human UDP-Galactose 4' Epimerase (GALE) Gene and Identification of Five Missense Mutations in Patients with Epimerase-Deficiency Galactosemia. Molecular Genetics and Metabolism 63:26-30, 1998.

#### Chapters in Books

1. Tourtellotte WW, Allen RJ, and DeJong RN: A study of lipids in cerebrospinal fluid (and serum), VII. In several sphingolipidoses (Tay-Sach's Disease, Metachromatic Leukodystrophy, and Nieman-Pick Disease). (International Symposium) Cerebrospinal Sphingolipidoses, Academic Press, New York, 1962, p 317.
2. Allen RJ: Degenerative disorders of the central nervous system (Chapter 10). In: Brennemann-Kelley Practice of Pediatrics, Harper & Row, New York, Vol. 4, 1972.
3. Allen RJ: Phenylketonuria. In: Control of Arthritis and Metabolic Diseases, 1964, p. 211. (Continuing Education Series No. 119, U of Mich Sch of Pub Health).
4. Allen RJ: The diagnosis of pediatric neurological disorders. Ped Man, U of Mich Med Center, 1965, p 324.
5. Allen RJ, Fleming L, Spirito RA: Variations in hyperphenylalanine. Amino Acid Metabolism and Genetic Variation. Blackiston Division McGraw Hill, Inc. (ed. W. L. Nyhan), 1967, 69-96.
6. Allen RJ and Schartz E: Clinical study of diet discontinuation in Michigan - a 10 year review. Published in Summary of Proceedings of

Collaborative Study of Children Treated for Phenylketonuria, Twelfth General Medical Conference, March 2-3, 1976, Stateline, Nevada. Printed at Children's Hospital of Los Angeles, February 1, 1977.

7. Allen RJ: Neurological evaluation of children with behavioral disturbances. In: Behavioral Problems of Childhood, Chapter 17, S. Gabel (Ed.), Grune & Stratton, Inc., New York, 1981.
8. Allen RJ, Dyken PR, Berg BO, Lockman LA, Swaiman KF: Degenerative disorders of the central nervous system. In: Practice of Pediatric Neurology, Volume II, Chapter 30, K. F. Swaiman and F. Wright (Eds.), C. V. Mosby Company, St. Louis, Missouri, 1982.
9. Cole SS, Allen RJ, Schaefer AM, Griesemer P: Hidden from View/PKU in the Teen. (Funded by a grant from the Patient Education Advisory Committee), October, 1985 (booklet).
10. Schaefer AM, Prochaska G, Young W, Read S, Allen RJ: A centralized program for home self-monitoring of blood levels in PKU. In: Advances in Neonatal Screening, Proceedings of the 6th International Neonatal Screening Symposium, Austin, Texas November 16-19, 1986 and 5th National Neonatal Screening Symposium, Austin, Texas November 20, 1986. Bradford L. Therrell (Ed.) Excerpta Medica, Elsevier Science Publishers Biomedical Division, The Netherlands, 1987, 191-194.
11. Allen RJ Schaefer AM, Schwartz E: Neuroepidemiology of PKU: Neurological outcome in infants missed by newborn screening tests. In: Advances in Neonatal Screening, Proceedings of the 6<sup>th</sup> International Neonatal Screening Symposium, Austin, Texas November 16-19, 1986 and 5th National Neonatal Screening Symposium, Austin, Texas November 20, 1986. Bradford L. Therrell (Ed.), Excerpta Medica, Elsevier Science Publishers Biomedical Division, The Netherlands, 1987, 577-580.
12. Allen RJ: Kearns-Sayre Disease, Birth Defects Encyclopedia, Mary Louise Buyse(Ed.). Alan R. Liss, Inc., New York, New York, 1989.
13. Allen RJ: Immunologic diseases (Chapter 6). In: Pediatric Neurology for the Clinician, Ronald B. David (Ed.), Appleton & Lange, Inc., Norwalk, CT, 1992.
14. Allen RJ: Neonatal Galactosemia. In: Early Hospital Discharge: Impact on Newborn Screening, K. A. Pass and H. H. Levy (Eds.), National Maternal and Child Health Clearinghouse, McLean, VA, Conference Proceedings, 167-200, 1995.

#### Abstracts, Preliminary Communications, Panel Discussions

1. Allen RJ: Chorioretinitis and central nervous system diseases in infancy. Amer J Dis of Child 98: Oct, 1959. (Presented before Am Ped Soc, Buck Hill Falls, May, 1959).

2. Allen RJ: Myoclonic seizures in infancy associated with the excretion of an abnormal aromatic metabolite. (Presented before Am Acad of Neurol, Los Angeles, Apr, 1959).
3. Liss L. and Allen RJ.: A familial neuromuscular disorder—an amyotonic syndrome in two siblings. J of Neuropath and Exp Neurol 19:176, 1960.
4. Allen RJ: An evaluation of steroid therapy in hypsarrhythmia. J. Electroenceph & Clin Neurophysiol p 147, Feb, 1961 (Presented before the Cen EEG Assn, Oct, 1960).
5. Allen RJ, McCusker JJ, Tourtellotte WW: Metachromatic leukodystrophy: clinical, histological and CSF abnormalities. Am J Dis Child 105:77, 1961. (Presented before the Am Ped Soc, May, 1961).
6. Allen RJ: Neurological abnormalities in phenylketonuria biochemically unrelated to phenylalanine intoxication. Amer J Dis Child 104:487, 1962. (Presented before Am Ped Soc, May, 1962).
7. Tourtellotte WW, Allen RJ, Haerer AF, Kelley SA, Gustafson KA, Bryan ER, DeJong RN: A study of lipids in cerebrospinal fluid in Tay-Sachs Disease. Trans Amer Neurol Assn 1964. (Presented before the Am Neurol Assoc, Atlantic City, June, 1963).
8. Allen RJ, Spirito RA, Shah RM: The influence of metabolic variations in the diagnosis of phenylketonuria in infancy. J Ped 67:929, 1965 (Presented before the Soc of Ped Res, 1964).
9. Allen RJ: The clinical and pathological characteristics of Phenylketonuria. (Presented before the Central Soc of Neurol Res, St. Louis, Oct, 1965).
10. Allen RJ: Variations in phenylalanine hydroxylase activity. (Presented before the Central Soc of Neurol Res, Denver, Col, Oct, 1966).
11. Allen RJ, Spirito RA, and Fleming L: Enzymatic variations in hyperphenylalaninemia. (Presented at Amino Acid Symposium, Grand Bahama Islands, Mar, 1967).
12. Allen RJ: Experience with over 100 cases of phenylketonuria. (Presented before the Hereditary Metabolic Disease Symposium, Park City, Utah, Sept, 1967).
13. Allen RJ, Spirito RA, Fleming L: Occult phenylketonuria. (Presented before the Midwest Pediatric Research Society, Columbus, Oct, 1967).
14. Heyn R, Allen RJ: Hematological findings in an infant with maple syrup urine disease on dietary therapy. (Presented before the Midwest Society of Pediatric Research, Columbus, Cot, 1967).

15. Salguero LF, Itabashi H, Allen RJ: Some neuropathologic observations in Phenylketonuria. (Read by title, A.N.A., June, 1968).
16. Allen RJ: Homocystinuria. (Presented before the Central Society for Neurological Research, New Orleans, November, 1968).
17. Allen RJ: Hair-brain disease. (Presented before the Society of Neurological Research, Tucson, Nov, 1969).
18. Allen RJ: Amino acidopathies and central nervous system disease (Presented before Postgraduate Meetings at Mayo Clinic, Apr, 1969).
19. Allen RJ: Defects in phenylalanine metabolism and central nervous system disease. (Presented before Postgraduate Meetings at Mayo Clinic, Apr, 1969).
20. Allen RJ: (Closed Circuit TV Presentation) Typical clinical patients with striated muscle disease. (Presented at the Muscle Symposium sponsored by the Muscular Dystrophy Associations of America, Inc., University of Michigan, June, 1970).
21. Allen RJ, Bauer RC, Fleming LM, Frey J: Peritoneal dialysis in the modification of the neurologic and metabolic abnormalities of branched chain ketonuria (SUDK). (Read by title, Society for Pediatric Research, Apr, 1971).
22. Wyche N, Allen RJ, Kooi KA, Baublis JV, Itabashi HH: The prognostic significance of electroencephalographic patterns in subacute sclerosing panencephalitis (SSPE). (Read by title, Society for Pediatric Research, Apr, 1971).
23. Allen RJ: Neurological observations in a new phakomatous disorder. (Presented at the Regional Child Neurology Society Meeting, Madison, Wisconsin, Mar, 1972).
24. Allen RJ: Periodic paralysis and hyperalaninemia. (Presented at National Meeting of the Child Neurology Society, Ann Arbor, Michigan, Oct, 1972).
25. Marks H, Headington J, Allen RJ: Hypoparathyroidism associated with the oculocraniosomatic syndrome. (Child Neurology Society, Hamilton, Ontario, Sept, 1975).
26. Allen RJ: Sleep myoclonus in infancy. (Child Neurology Society, Monterey, California, Oct, 1976).
27. Allen RJ: Metabolic variants in disorders of amino acids. Presidential Address, Child Neurology Society, Charlottesville, Virginia, Oct, 1977.
28. Allen RJ, Zipf WB, Hieber V: Valine toxicity in intermittent branched-chain ketoaciduria (BCKA) with atypical decarboxylase activity (Abstract). Ped Research 11:466, 1977.

29. Allen RJ, Schwartz E: Clinical study of diet discontinuation in Michigan, a 10 year review. Proceedings of Collaborative Study of Children Treated for Phenylketonuria. Twelfth General Medical Conference, March 2-3, 1976, Stateline, Nevada, Ed, Childrens Hospital of Los Angeles, Feb 1, 1977.
30. Seigel RS, Seeger JF, Gabrielsen TO, Allen RJ: Cerebral computed tomography in oculocraniosomatic disease (Kearns-Sayre Syndrome) (Presented: Radiological Society of North America, 63rd Scientific Assembly and Annual Meeting), Nov 30, 1977.
31. Coulter D, Allen RJ: Trichorrhesis nodosa and congenital central nervous system defects. Child Neurology Society, National Meeting, Sept, 1978.
32. Allen RJ, Wong P, Rothenberg SP, DiMauro S, Headington JT: Neonatal systemic carnitine-folate deficient leukoencephalomyopathy with absent methylenetetrahydrofolate reductase, homocystinuria, hypomethioninemia responsive to dietary carnitine-methionine-folate (C-M-F) supplements. International Symposium on Inborn Errors of Metabolism, Interlochen, Switzerland Sept, 1980 (Poster Session).
33. Allen RJ: More on bobbing baby (spasmus nutans). Clini-Pearls 3:1, Oct., 1980.
34. Pugh JE, Allen RJ: Brainstem auditory evoked responses in the management of metabolic CNS disorders of childhood. Department of Neurology, Michigan Neurological Association, Oct, 1980.
35. Coulter DL, Allen RJ, DiMauro S, Rothenberg SP: Kearns-Sayre syndrome a possible disorder of folate metabolism. Annals of Neurology 8:211. 1980.
36. Allen RJ, Wong P, Rothenberg SP, DiMauro S, Headington JT: Progressive neonatal leukoencephalopathy due to absent methylenetetrahydrofolate reductase responsive to treatment. Annals of Neurology 8:215 1980.
37. Coulter DL, Allen RJ: Use of valproic acid in infants. (Abstract) Epilepsia 22:234 (April), 1981.
38. Coulter DL, Allen RJ: Morbidity and mortality of valproic acid administration in children. (Abstract) Epilepsia 22:234 (April), 1981.
39. McCabe ERB, Mosher GA, McCabe L, Allen RJ: Newborn screening for Phenylketonuria (PKU): when should the infant be tested? Society for Pediatric Research, Apr, 1981 (Poster Session).
40. Allen RJ, Wong P, Rothenberg S, DiMauro S, Headington JT: Neonatal carnitine deficiency with muscle and CNS deterioration secondary to absent 5,10-methylenetetrahydrofolate reductase (MTHFR) responsive to substrate replacement. Society for Pediatric Research (Abstract) Apr, 1981.



41. Coulter DL, Allen RJ: Hyperammonemia associated with valproic acid therapy. (Abstract) Annals of Neurology 10:307, 1981 (Abstract).
42. Coulter DL, Allen RJ: Morbidity and mortality of valproic acid administration in children. American Epilepsy Society, Presented, 1981.
43. Schwartz E, Hufstetler D Allen RJ: Psychological stability in PKU diet termination at age three. Abstract (Read by Title), Society for Pediatric Research, December, 1981.
44. Gebarski S, Gabrielson TO, Allen RJ, et al.: Cerebral CT findings in Homocystinuria. Submitted April, 1982 for XII Symposium Neuroradiologicum (Fall, 1982 Meeting).
45. Young RSK, Coulter DL, Allen RJ: Capsular stroke as a cause of hemiplegia in infancy. American Academy of Neurology Scientific Program, Washington, D.C., April, 1982 (Presented, Poster Session).
46. Rabinovitch MA, Kalff V, Allen RJ, et al.: W-I-123 Hexadecanoic acid probe of metabolic cardiomyopathy. Presented, Society of Nuclear Medicine 29th Annual Meeting, Miami Beach, Florida, June, 1982.
47. Allen RJ, Coulter DL, Butler IJ: Infantile bilateral striatal necrosis (IBSN):the cause of a dyskinetic syndrome. Abstract, Child Neurology Society, Oct, 1982.
48. Coulter DL, Allen RJ: Symptomatic hyperammonemia in children taking valproic acid. (Poster Session) Joint Annual Meeting, American EEG Society and American Epilepsy Society, Phoenix, Arizona, Nov, 1982.
49. Allen RJ, DiMauro S, Coulter DL: Kearns-Sayre syndrome (KSS) a possible disorder of folate and carnitine metabolism. Abstract, Society for Pediatric Research May, 1983. Ped. Research 17:286A, 1983.
50. Allen RJ, Schwartz E, Schaefer AM: Paternal Phenylketonuria: reproductive risks. Abstract, Society for Pediatric Research May, 1983. Ped Research 17:206A, 1983.
51. Wolf B, Grier R, Allen RJ, Goodman S, Kien C: Biotinidase deficiency: explanation of clinical features of late-onset multiple carboxylase deficiency (MCD), Abstract, Society for Pediatric Research May, 1983. Ped. Research 17:222A, 1983.
52. Wolf B, Grier R, Allen RJ, Goodman S: Deficient biotinidase activity in late-onset multiple carboxylase deficiency (MCD). Society for Pediatric Research May, 1983. Ped. Research 17:222A, 1983.
53. Allen RJ, Wolf B, Grier RE, Dorovini-Zis K: Infantile seizures in biotinidase deficiency. Presented,, Child Neurology Society October, 1983. Annals of Neurology 14:386, 1983.

54. Schaefer AM, Allen RJ: Model for self-monitoring in adolescent/adult PKU. Presented, Midwest Regional Meeting, Metabolic Disorder Network, Cincinnati, Ohio June 2, 1984.
55. Allen RJ, Gebarski S: Early-onset leukodystrophy in branched-chain ketoaciduria evaluated by magnetic resonance imaging. Annals of Neurology 16:408, 1984.
56. Allen RJ, Gebarski S, Aisen A: Magnetic resonance (MR) brain imaging in genetic metabolic diseases: diagnostic and therapeutic implications. Platform, Society for Pediatric Research, May, 1985. Ped. Research 19:1657, 1985.
57. Allen RJ, Gebarski S: Brain magnetic resonance imaging (MRI) in inborn errors of metabolism: in vivo identification of CNS damage, 4th International Congress of Inborn Errors of Metabolism, May 26-30, 1987, Sendai, Japan.
58. Allen RJ, Schaefer AM, Schwartz E: Abrupt neurological deterioration in MSUD. Midwest Metabolic Disorder Network Conference, June 12-13, 1987, Indianapolis, Indiana.
59. Allen RJ: Child development: diet and the brain. Advances in Clinical Nutrition: Implications for Pharmacy Practice, April 16, 1989, Ann Arbor, Michigan.
60. Kollros P, Allen RJ, Shulkin B, Koeppe B, Schaefer AM, Giordani B, Berent S, and Vanderzant C: PET scanning of cerebral metabolism in Classic PKU. Child Neurology Society Meeting, Ann Neurol 26:435, 1989.
61. Koeppe R, Shulkin B, Allen RJ, Kollros P, Price J, Betz L, Mangner L, Rosenspire K, Kuhl D and Agranoff B:  $^{11}\text{C}$ -Aminocyclohexane carboxylic acid - a probe for measurement of amino acid transport into brain. European Association of Nuclear Medicine Congress August, 1989 (Strasbourg, France)
62. Otal M, Read S, Young W, and Allen RJ: Comparison of two procedures for Galactosemia screening: Beutler-Baluda and Hill-Misuma. 7th National Neonatal Screening Symposium, November 15-19, 1989, New Orleans.
63. Allen RJ: Metabolic encephalopathies in children. Pediatric Grand Rounds at St. Luke's Hospital, February 16, 1990, Saginaw, Michigan.
64. Allen, R.J.: Neonatal Parkinsonism. Neurology Grand Rounds, University Hospital, May 23, 1990. Ann Arbor, Michigan.
65. Allen RJ, Read S, Schaefer AM, Andruszewski K, Bonacci J: Transient neonatal hyperphenylalaninemia ("Fetal PKU") following gestational hyperphenylalaninemia ("Maternal PKU"). SIMD Meeting, Carmel, California, June 1, 1990.

66. Allen RJ, Young W, Bonacci J, Persico S, Schaefer AM, Andruszewski K: Neonatal dystonic Parkinsonism. A "stiff baby syndrome" in bipterin deficiency with hyperprolactinemia detected by newborn screening for hyperphenylalaninemia and responsive to treatment. Child Neurology Society Meeting October 18-20 (Abstract). Ann Neurol 28:434, 1990.
67. Koeppel RA, Mangne T, Betz AL, Shulkin BL, Allen RJ, Kollros P, Kuhl DE and Agranoff BW: Use of (<sup>11</sup>C) Amino Acid Uptake and Distribution Volume in Human Brain. J Cerebral Blood Flow and Metabolism 10:727-739, 1990.
68. Allen RJ: Neurological deterioration in young adults with Phenylketonuria. Lancet (Letter to the Editor) 336:949, 1990.
69. Allen RJ: Maple Syrup Urine Disease. Research Trust for Metabolic Diseases in Children (RTMDC) Newsletter. 3:8-9, 1991.
70. Allen RJ: Current treatment of MSUD. Midwest Metabolic Network Conference, June 7-8, 1991, Oak Brook, Illinois.
71. Allen RJ, Young W, Read S: "Galactosemic encephalopathy": the effect of early versus late neonatal detection and treatment on neurological outcome. Child Neurology Society Meeting October 3-5 (Abstract). Ann Neurol 30:465-466, 1991.
72. Allen RJ: Neurologic outcome in PKU, Galactosemia, MSUD, and Biotinidase Deficiency in a regional newborn screening (NBS) program: relation of neural ontogenesis to treatment. International Neonatal Screening Symposium November 12-15, 1991, Australia.
73. Allen RJ, Young W, Read S: Improving outcome with prompt reporting of NBS tests in the management of neonatal metabolic diseases: Galactosemia, Biotinidase deficiency, and MSUD. 9th National Neonatal Screening Symposium, Raleigh, North Carolina, April, 1992 (Poster Session).
74. Allen RJ: Newborn screening for Galactosemia: problems and solutions. Great Lakes Regional Genetics Group (GlaRGG) Meeting, April 9, 1994, Indianapolis, Indiana (Podium Presentation).
75. Allen RJ, Brunberg J, Schwartz E, Schaefer AM, Jackson G: MRI characterization of cerebral dysgenesis in MPKU. International PKU Symposium (60th Anniversary of Folling's Discovery), Podium presentation, May 26, 1994, Elsinore, Denmark (Submitted for Symposium Publication), Acta Paediatr Suppl 407:83-85, 1994.
76. Allen RJ, Schwartz E, Brunberg J: Neurological outcome of neonatal galactosemia before & after newborn screening (NBS) in a statewide regional program. 10th National Neonatal Screening Symposium, Seattle, Washington, June 9, 1994, Podium Presentation (Submitted for Symposium Publication).

77. Allen RJ: Neuroimaging in metabolic disorders. Midwest Metabolic Disorder Network Conference, June 18, 1994, Indianapolis, Indiana (Podium Presentation).
78. Schaefer AM, Jacobson J, Andruszewski K, Jackson G, Allen RJ: Early diagnosis of PKU in siblings. Midwest Metabolic Disorder Network Conference, June 18, 1994, Indianapolis, Indiana (Podium Presentation).
79. Allen RJ, Schaefer AM: Neurologic and Dietary Management. Maple Syrup Urine Disease (MSUD) 8th Symposium, June 22-23, 1996, Columbus, Ohio.
80. Allen RJ: NBS Perspective and the Internet. Association for Neuro-Metabolic Disorders XV Parent Forum: Experiences with Metabolic Disorders, April 26, 1997, Ann Arbor, Michigan.

#### Audio-visual Education Materials

1. Cole SS, Allen RJ, Schaefer AM, Griesemer P: Hidden from View (Funded by grant from Patient Education Advisory Committee), July, 1985 (Patient education TV tape).