

CURRICULUM VITAE

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5 Castlebar Court
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Education

- 1974 – 1978 Kandidaats, Biology and Chemistry, Nijmegen University, the Netherlands, 1977.
- 1978 – 1980 M.S., Physiology, University of California at Davis, 1980.
Advisor: Barbara A. Horwitz, Ph.D.
- 1980 – 1984 Ph.D., Physiology, University of California at Davis, 1984.
Advisor: Robert P. Scobey, Ph.D.

Professional Positions

- 1977 – 1978 Graduate research, Department of Biochemistry, Nijmegen University, the Netherlands (with Dr. Hans Bloemendal).
- 1978 – 1979 Research Assistant, Department of Animal Physiology University of California, Davis (with Drs. Barbara A. Horwitz and John M. Horowitz).
- 1979 – 1981 Teaching and Research Assistant, Department of Animal Physiology, University of California, Davis.
- 1980 – 1984 Staff Research Associate, Department of Neurology, University of California, Davis (with Drs. Robert P. Scobey and Andrew J. Gabor).
- 1984 – 1988 Research Associate, Department of Physiology, Northwestern University Medical School, Chicago (with Drs. Alan R. Gibson and James C. Houk).
- 1988 – 1994 Staff Associate, Div Neurobiology, Barrow Neurological Institute, Phoenix.
- 1995 – 2002 Assistant Professor in Motor Control and Behavior, Department of Kinesiology, University of Wisconsin, Madison.

2002 – present Associate Professor in Motor Control and Behavior with tenure,
Department of Kinesiology, University of Wisconsin, Madison.

Research Funding

Fellowships and Scholarships:

Jastro Shields Award, 1978 – 1979, University of California, Davis

Graduate Research Scholarship, 1979 – 1980, University of California, Davis

Grant support (completed):

National Institute of Health, NINDS Grant R01 NS2737, "Signal analysis of cerebellar cortical neurons," Budget period: 9/1/88 – 12/31/91. Direct costs: \$215,639.

Principle Investigator.

National Institute of Health, NINDS Grant R01 NS24042, "Functional organization of cerebellar output." Budget period: 12/15/93 – 11/30/97. Direct costs: \$452,436.

Principle Investigator.

National Institute of Health, NINDS Grant R01 NS38143, "Eye-hand coordination by cerebellar output neurons." Budget period: 2/12/99 – 1/31/2001, no-cost extension until 1/31/2003. Direct costs: \$175,831. Principle Investigator.

National Institute of Health, NINDS Grant 1 R01 NS043317, "Function of Magnocellular Red Nucleus in Reach-to-grasp." Budget period: 12/1/2002 – 11/30/2006. No-cost extension: 5/31/2009. Direct costs: \$775,000. Principle Investigator.

Graduate School Research Competition, University of Wisconsin-Madison, "Cerebellar Control of Reaching to Grasp." Budget period: 6/1/2012 – 6/30/2014. Direct costs: \$23,604. Principle Investigator.

Virginia Horne Henry Fund for Women's Physical Education, University of Wisconsin-Madison, "Benign Joint Hypermobility Syndrome, Proprioceptive Deficits, and Anxiety: Exploring Potential Links." Budget period: 6/1/2018 – present. Direct costs: \$14,811.

Academic Honors and Awards

Fulbright Hays Fellowship, 1978 – 1979.

Sabbatical Leave w/ Educational Innovation Supplement [Award](#), University of Wisconsin-Madison, 2013 – 2014.

Excel Initiative, 2020, \$5,000. Individualized support, instructional and financial resources, and collaboration with an Excel instructional consultant to facilitate and guide course design that helps faculty and instructors apply evidence-based and learner-centered teaching practices to their courses (suspended due to the COVID-19 pandemic).

Instructional Continuity Small Grant, 2020-2021, \$5,000. Individual Instructor grant to foster innovative ways for students to interact and share learning virtually with their peers in the context of their academic coursework.

Professional Affiliations

Society for Neuroscience

Neural Control of Movement Society

Professional service

(National service)

Review of Research Grant Applications:

NSPB Review Committee, National Institute of Neurological Disorders and Stroke, National Institute of Health. Ad hoc member of special study section to review program project grant, 1994.

NSPB Review Committee, National Institute of Neurological Disorders and Stroke, National Institute of Health. Ad hoc member of special study section to review program project grant, 1995.

NATO Collaborative Research Grant Application, 1996.

Integrative, Functional, and Cognitive Neuroscience, IFCN1 – Study Section Member (Special Emphasis Panel CSR/ZRG1-IFCN1-03), Center for Scientific Review, National Institute of Health, 3/24/99.

National Science Foundation, Ad hoc reviewer, 10/30/2001.

Integrative, Functional, and Cognitive Neuroscience - Sensorimotor Integration Study Section, Temporary member, National Institute of Health, 2/21/2006.

Outside evaluator in tenure case:

Department of Physiology, Northwestern University, January 2003.

Editorial review of manuscripts:

Brain Behavior and Evolution

Brain Research

Cognitive Systems Research

Experimental Brain Research

Journal of Neurophysiology

Journal of Neuroscience

Journal of Cognitive Neuroscience

Neuroscience

Editorial review of text books:

Elsevier, Fundamental Neuroscience (Squire et al. 2010)

Organization of Symposia, etc.:

Society for Neuroscience, Chair, Special Interest Social. Motor Systems and Sensorimotor Integration: Neural control of movement. 30th Annual Meeting of the Society for Neuroscience, New Orleans, LA, 11/7/2000.

Society for Neuroscience, Chair & Speaker, Symposium: Descending Motor Pathways and the Control of Whole-Limb Movements. 31st Annual Meeting of the Society for Neuroscience, San Diego, CA, 11/12/2001.

Pat Gorman Golf Academy, LLC. Golf Symposium 2011: Understanding and Maximizing Student Potential, Teaching Effectively and Playing Better Golf! Panel member. Madison, WI, 1/4/2011.

(University service)

Invited to consult Animal Care and Use Committee regarding primate charring, 1997.

Invited to meet with the NIH site-visit team evaluating the Neuroscience Training Grant, 1997.

Invited interviewer of candidates for tenure-track faculty position in the Department of Physiology, 1999.

Elected Faculty Senator, Department of Kinesiology, 1999 – 2000; 2002 – 2004, 2015 – present

Recruiter of underrepresented minorities for graduate study in Neuroscience at UW-Madison, NSF/HBCU Conference at Tuskegee University, Nov. 22-24, 2002.

Steering Committee, Clinical Neuroengineering Training grant (PIs: Tom Yin and Beth Meyerand), 2003-2008.

Admissions Committee, Clinical Neuroengineering Training grant (PIs: Tom Yin and Beth Meyerand), 2004-2008.

Reviewer, Internal competition for Brain Research Foundation Seed Grant proposals, 2012

University Committee Memberships

Campus Transportation Committee, 2014 – 2020

Faculty Senate, Department of Kinesiology, 1999 – 2000; 2002 – 2004; 2015 – present

School of Education Committee Memberships

School of Education Facilities Committee, 2003-2005

ITPAC (Information Technology Policy Advisory Committee), 2006 – 2015.

Search Committee, Chief Information Technology Officer, School of Education, 2010 (Daniel Jacobsohn was hired)

Search Committee, Instructional Technologist, School of Education (MERIT), 2020 (Bill Weber was hired)

Department of Kinesiology Service and Committee Memberships

Executive Committee, 2002 – present

Graduate Studies Committee, 1995 – 2015

Undergraduate Studies Committee, 2015 – 2016

Margaret Kohli Scholarship Committee, 1995 – 1996

Exercise Science Search Committee, 1996 – 1997 (Diffie was hired)

Grievance Committee, 1997 – 1998

Motor Control and Behavior Search Committee, 1997 (Mason was hired)

Merit Review Committee, 1998, 2003, 2019, 2020

Space, Facilities & Technology Committee, 1999 – 2000 (member); 2002 – 2019 (chair)

Mentor Committee, Internal Review Committee for Assistant Professor Andrea H. Mason, 2002 – 2008 (member); 2008-2009 (chair)

Mentor Committee, Internal Review Committee for Assistant Professor Julia Willbarger, 2003 – 2012

Mentor Committee, Internal Review Committee for Assistant Professor Elizabeth Larson, 2005 – 2009

Exercise Science Search Committee, 2003-2004 (Tanaka was hired)

Exercise Science Search Committee, 2005-2006 (Schrage was hired)

Physical Environment Group. Member, 2008
Electronic Course Evaluation. Member, 2008
Salary Equity Review Committee. Member, 2008
Marsh Center Task Force, 2008 – 2012
Department Chair, summer 2011
Department Chair, summer 2012

Neuroscience Training Program Committee Memberships

Special Events Committee, 1995 – 1997
Admissions Committee, 1999
Diversity Enhancement Committee, 2001 – 2004, member; 2004 – 2019, chair

Invited Research Presentations

(International)

Tianjin University, P.R. China, 2010
Beijing Sport University, P.R. China, 2010

(National)

Department of Physiology and Pharmacology, University of Nebraska, Lincoln, NE,
1986.
Department of Physiology, Northwestern University, Chicago, IL, 1988.
Department of Physiology, University of Arizona, Tucson, 1989.
Neural Control of Movement Conference, Marco Island, FL, Symposium Speaker:
"Cerebellar Function during Eye and Limb Movements: Adaptation and
Control," 1992.
Society for Neuroscience, Chair and speaker, Symposium: Descending Motor Pathways
and the Control of Whole-Limb Movements. 31st Annual Meeting of the
Society for Neuroscience, San Diego, CA, 11/12/2001

(University of Wisconsin)

Department of Kinesiology, University of Wisconsin – Madison, 1994.
Neuroscience Training Program, University of Wisconsin – Madison, 9/25/95.
Biomedical Engineering Program, University of Wisconsin – Madison, 3/18/96.
Wisconsin Regional Primate Center, Neurobiology group, University of Wisconsin –
Madison, 4/12/96.
Wisconsin Regional Primate Center Seminar, University of Wisconsin – Madison,
11/1/96.
Department of Mechanical Engineering Robotics Seminar, University of Wisconsin –
Madison, 11/14/96.
UW Biomedical Society, University of Wisconsin – Madison, 4/5/2000.
Graduate Colloquium, Department of Kinesiology, University of Wisconsin – Madison,
4/7/2000.
Grand Rounds, Department of Neurology, University of Wisconsin – Madison,
9/20/2002.
Neuroscience Training Program (682-675), Neurobiology Seminar, University of
Wisconsin – Madison, 10/9/2002 and 10/21/2003.

BME Seminar, University of Wisconsin – Madison, 2/23/2004.

Neuroscience Training Program, Neurobiology Seminar (682-500), University of Wisconsin – Madison, 5/6/2008.

Department of Physiology, Physiology 630, University of Wisconsin – Madison, 3/25/2010.

Department of Kinesiology, University of Wisconsin – Madison, 2010.

Teaching

(Class room teaching)

- 1979 – 1981 Department of Animal Physiology, University of California at Davis. Teaching Assistant/Lecturer for courses in Animal Physiology, Basic Electrophysiology, Cellular and Systems Neurophysiology.
- 1990 – 1991 Division of Neurobiology, Barrow Neurological Institute. Organizer, Neuroscience Teaching Seminar for Graduate Students and Postdoctoral Fellows.
- 1994 Division of Neurobiology, Barrow Neurological Institute. Guest Lecturer, Neuroanatomy for Neurology Residents.
- 1995 – present Department of Kinesiology, University of Wisconsin-Madison.
- Courses taught:*
- 742-119 – Introduction in Kinesiology
 - 742-200 – Introductory Neuroscience
 - 742-300 – Motor Behavior Practicum
 - 742-321 – Introduction to Neural Basis for Movement
 - 742-361 – Introduction to Motor Learning and Performance
 - 742-531 – Neural Control of Movement
 - 742-618 – Biomechanics
 - 938-713 – Neural Basis for Normal and Pathological Movement
 - 742-721 – Neural Basis for Movement
 - 742-861 – Principles of Motor Control and Learning
 - 742-900 – Seminar – Kinesiology
 - 742-951 – Seminar – Biomechanics
 - 742-961 – Seminar – Motor Learning and Control
 - 742-963 – Seminar – Motor Behavior
 - 742-991 – Research in Physical Education – Theory and Design
- 2010 Short course in Motor Control and Behavior, Beijing Sport University, P.R. China, 2010
- 2011 – 2012 Chinese Champions Program, University of Wisconsin-Madison - Seminar in Motor Control

(Mentor teaching)

M.S. Thesis and Ph.D. Preliminary Examination and Dissertation Committees:

Kristine M. Erickson (Kinesiology, M.S., Major Professor)

Shashwati Geed (Kinesiology, Ph.D., Major Professor)

Alexander Remsik (Kinesiology, Ph.D., Major Professor)

Steve Voss (Kinesiology, M.S.)

Pam Barrett (Kinesiology, M.S.)

Laura Wheeler (Kinesiology, M.S.)
 Citlali Lopez-Ortiz (Kinesiology, Ph.D.)
 Victoria Moerchen (Kinesiology, Ph.D.)
 Lynn Rogers (Kinesiology, M.S.)
 Colin Grove (Kinesiology, M.S.)
 Jennifer Bruyn (Kinesiology, M.S.)
 Ankur Garg (Kinesiology, M.S.)
 Nate Oats (Kinesiology, M.S.)
 Matthew Schmidt (Kinesiology, Ph.D.)
 Robert Giachetti (Kinesiology, Ph.D.)
 Brendon Bernardin (Kinesiology, M.S.)
 David Havas (Psychology, Ph.D.)
 Kim Younghoon (Physiology, Ph.D.)
 Joel Shires (Physiology, Ph.D.)
 Julie Hunley (Kinesiology, Ph.D.)
 Patrick Grabowski (Kinesiology, M.S.)
 Drew Rutherford (Kinesiology, M.S.)
 Valerie Joers (Neuroscience Training Program, Ph.D.)
 Ruby Hui-Chun Chen (Kinesiology, Ph.D.)
 Kristin Allison (Communication Disorders, Ph.D.)
 Yeojin Choi (Kinesiology, Ph.D.)
 Carrie Francis (Mechanical Engineering, Ph.D.)
 Kieran Nichols (Kinesiology, M.S.)
 I-chen Chen (Kinesiology, Ph.D.)
 Scott Anderson (Kinesiology, Ph.D.)

Publications

Journal articles:

- Ramaekers, FCS, Van Kan, PLE, Bloemendal H. A comparative study of Beta-crystallins from ungulates, whale and dog. *Ophthalmic Res* 11: 143-153, 1979.
- Van Kan, PLE, Scobey, RP, Gabor, AJ. Response covariance in cat visual cortex. *Exp Brain Res* 60: 559-563, 1985. PMID: 4076377. DOI: [10.1007/BF00236942](https://doi.org/10.1007/BF00236942)
- Houk, JC, Gibson, AR, Harvey, CF, Kennedy, PR, Van Kan, PLE. Activity of primate magnocellular red nucleus (RNm) related to hand and finger movements. *Behav Brain Res* 28: 201-206, 1988. PMID: 3382512. DOI: [10.1016/0166-4328\(88\)90097-6](https://doi.org/10.1016/0166-4328(88)90097-6)
- Scobey, RP, and Van Kan, PLE. A horizontal stripe of displacement sensitivity in the human visual field. *Vision Res* 31: 99-109, 1991. PMID: 2006558. DOI: [10.1016/0042-6989\(91\)90077-i](https://doi.org/10.1016/0042-6989(91)90077-i)
- Van Kan, PLE, Houk, JC, and Gibson, AR. Output organization of intermediate cerebellum of the monkey. *J Neurophysiol* 69: 57-73, 1993. PMID: 8433134 DOI: [10.1152/jn.1993.69.1.57](https://doi.org/10.1152/jn.1993.69.1.57)
- Van Kan, PLE, Gibson, AR, and Houk, JC. Movement-related inputs to intermediate cerebellum of the monkey. *J Neurophysiol* 69: 74-94, 1993. PMID: 8433135. DOI: [10.1152/jn.1993.69.1.74](https://doi.org/10.1152/jn.1993.69.1.74)

- Miller, LE, Van Kan, PLE, Sinkjaer, T, Andersen, T, Harris, GD, and Houk, JC. Correlation of primate red nucleus discharge with muscle activity during free-form arm movements. *J Physiol (Lond)* 469: 213-243, 1993. PMID: 8271199. PMCID: [PMC1143869](#) DOI: [10.1113/jphysiol.1993.sp019812](#)
- Van Kan, PLE, Horn, KM, and Gibson, AR. The importance of hand use to discharge of interpositus neurones of the monkey. *J Physiol (Lond)* 480: 171-190, 1994. PMID: 7853221. PMCID: [PMC1155788](#) DOI: [10.1113/jphysiol.1994.sp020351](#)
- Gibson, AR, Horn, KM, Stein, JF, and Van Kan, PLE. Activity of interpositus neurons during a visually guided reach. *J Can Physiol Pharmacol* 74: 499-512, 1996. PMID: 8828895
- Horn, KM, Van Kan, PLE, and Gibson, AR. Reduction of rostral dorsal accessory olive responses during reaching. *J Neurophysiol* 76: 4140-4151, 1996. PMID: 8985907. DOI: [10.1152/jn.1996.76.6.4140](#)
- Van Kan, PLE and McCurdy, ML. Role of primate magnocellular red nucleus neurons in controlling hand preshaping during reaching to grasp. *J Neurophysiol* 85: 1461-1478, 2001. PMID: 11287470. DOI: [10.1152/jn.2001.85.4.1461](#)
- Van Kan, PLE, McCurdy, ML. Discharge of primate magnocellular red nucleus neurons during reaching to grasp in different spatial locations. *Experimental Brain Research*, 142(1), 151-157, 2002. PMID: 11797092. DOI: [10.1007/s00221-001-0924-5](#)
- Van Kan, PLE, McCurdy, ML. Contribution of primate magnocellular red nucleus neurons to timing of hand preshaping during reaching to grasp. *J Neurophysiol* 87: 1473-1487, 2002. PMID: 11877520. DOI: [10.1152/jn.00038.2001](#)
- Ruhland, JL, Van Kan, PLE. Medial pontine hemorrhagic stroke. *Physical Therapy* 83: 552-566, 2003. PMID: 12775201: <https://doi.org/10.1093/ptj/83.6.552>
- Geed, S, Van Kan, PLE. Grasp-based functional coupling between reach- and grasp-related components of forelimb muscle activity. *Journal of Motor Behavior*, 1-17, 2016. PMID: 27589010. PMCID: [PMC5733147](#) DOI: [10.1080/00222895.2016.1204265](#)
- Geed, S, McCurdy, M, Van Kan, PLE. Neuronal correlates of functional coupling between reach- and grasp-related components of muscle activity. *Frontiers in Neural Circuits*, 11(7), 2017. PMID: 28270752. PMCID: [PMC5318413](#) DOI: [10.3389/fncir.2017.00007](#)
- Remsik, AB, Dodd, K, Williams, L Jr, Thoma, J, Jacobson, T, Allen, JD, Advani, H, Mohanty, R, McMillan, M, Rajan, S, Walczak, M, Young, BM, Nigogosyan, Z, Rivera, CA, Mazrooyisebdani, M, Tellapragada, N, Walton, LM, Gjini, K, Van Kan, PLE, Kang, TJ, Sattin, JA, Nair, VA, Edwards, DF, Williams, JC, Prabhakaran V. Behavioral Outcomes Following Brain-Computer Interface Intervention for Upper Extremity Rehabilitation in Stroke: A Randomized Controlled Trial. *Frontiers in Neuroscience*, 12, 752, 2018. PMID: 30467461. PMCID: [PMC6235950](#) DOI: [10.3389/fnins.2018.00752](#)
- Remsik, AB, Williams, L Jr, Gjini, K, Dodd, K, Thoma, J, Jacobson, T, Walczak, M, McMillian, M, Rajan S, Young, BM, Nigogosyan, Z, Advani, H, Mohanty, R, Tellapragada, N, Allen, J, Mazrooyisebdani, M, Walton, LM, Van Kan, PLE, Kang, TJ, Sattin, JA, Nair, VA, Edwards, DF, Williams, JC, Prabhakaran, V. Ipsilesional Mu Rhythm Desynchronization and Changes in Motor Behavior

Following Post Stroke BCI Intervention for Motor Rehabilitation. *Frontiers in Neuroscience*, 13: 53, 2019. PMID: 30899211. PMCID: [PMC6417367](#)
DOI: [10.3389/fnins.2019.00053](#)

Remsik, AB, Gjini, K, Williams, L, Van Kan, PLE, Gloe, S, Bjorklund, E, Rivera, CA, Romero, S, Young, BM, Nair, VA, Caldera, KE, Williams, JC, Prabhakaran, V. Ipsilesional Mu Rhythm Desynchronization Correlates With Improvements in Affected Hand Grip Strength and Functional Connectivity in Sensorimotor Cortices Following BCI-FES Intervention for Upper Extremity in Stroke Survivors. *Frontiers in Human Neuroscience*, 15(630), 2021. PMID: 34776902.

PMCID: [PMC8581197](#) DOI: [10.3389/fnhum.2021.725645](#)

Remsik, AB, Van Kan, PLE, Gloe, S, Gjini, K, Williams, L, Nair, VA, Caldera, KE, Williams, JC, Prabhakaran, V. BCI-FES with Multimodal Feedback for Motor Recovery Poststroke. *Frontiers in Human Neuroscience*, revised manuscript in review | [PDF](#)

Book chapters:

Gibson, AR, Van Kan, PLE. What is a movement to the cerebellum? Symposium Proceedings: "Perspectives in Motor Control. Brainstorming on the State of Affairs and Future Developments," Paphos (Cyprus), p. 31-33, 1989.

Gibson, AR, Horn, KM, Van Kan, PLE. Grasping cerebellar function. In: Insights into the Reach to Grasp Movement. K.M.B. Bennett and U. Castiello (editors). North-Holland (Amsterdam): Elsevier Science, B.V., p. 85-108, 1994. | [PDF](#)

Gibson, AR, Horn, KM, Pong, M, Van Kan, PLE. Construction of a reach-to-grasp. In: Sensory guidance of movement. G.R. Bock and J.A. Goode (editors). Chichester: Wiley. Novartis Foundation Symposium 218: 232-250, 1998. PMID: 9949824. DOI: [10.1002/9780470515563.ch13](#)

Abstracts:

Van Kan, PLE, McClain, R, Gale, G, Seacord, A, Weidner, WJ, Jones, TA. Brainstem auditory evoked potentials (BAEPs): When is wave-2 a rose and when is it a carnation? *Soc Neurosci Abstr* 5: 208, 1979.

Van Kan, PLE, Jones, TA, Weidner, WJ. Intra-axial versus peripheral components of wave-1 in brainstem auditory evoked potentials (BAEPs). *Fed Proc* 39(3): 74, 1980.

Van Kan, PLE, Morgan, C, Horowitz, JM, Horwitz, BA. Na⁺ dependent glucose transport in dystrophic and normal hamster ileum. Federation of American Societies of Experimental Biology, Annual Meeting, 1981.

Scobey, RP, Van Kan, PLE. Recording from cortical neurons is aided by computer: Detection of signals in noise and control of microelectrode advancement. Fifth UCD Biomedical Engineering Symposium, University of California, Davis, 1982.

Scobey, RP, Van Kan, PLE, Toepfer, LA. Visual motion displacement sensitivity of cat X, Y, and W cells. *Physiologist* 26(4): A-111, 1983.

Van Kan, PLE, Scobey, RP. Visual motion displacement thresholds of X, Y, and W cells in the lower visual pathways of the cat at various durations of movement. *Soc Neurosci Abstr* 10(1): 296, 1984.

- Gibson, AR, Harvey, CF, Houk, JC, Kennedy, PR, Van Kan, PLE. Significance of cortical input to the monkey red nucleus. *J Physiol (Lond)* 371: 47P, 1985.
- Van Kan, PLE, Houk, JC, Gibson, AR. Body representation in the nucleus interpositus of the monkey. *Neurosci Lett Suppl* 26: S231, 1986.
- Van Kan, PLE, Houk, JC, Gibson, AR. Response properties of cerebellar afferents during specific movements. *Soc Neurosci Abstr* 12(1): 578, 1986.
- Van Kan, PLE, Houk, JC, Gibson, AR. Response characteristics of mossy fiber afferents during forelimb movements. *Neurosci Suppl* 22: S632, 1987.
- Van Kan, PLE, Kruberg, WG, Houk, JC. Identification of granular layer units in cerebellar cortex. *Soc Neurosci Abstr* 13(1): 603, 1987.
- Miller, L, Van Kan, PLE, Houk, JC. Task dependence of cross correlations of monkey red nucleus and forelimb EMG. *Soc Neurosci Abstr* 14(2): 954, 1988.
- Horn, KM, van Kan, PLE, Gibson, AR. Responses of cat external cuneate neurons during passive and active movements. *Soc Neurosci Abstr* 15(1): 179, 1989.
- Horn, KM, Van Kan, PLE, Gibson, AR. Red nucleus discharge during reaching in cats. *Soc Neurosci Abstr* 16(1): 154, 1990.
- Van Kan, PLE, Horn, KM, Gibson, AR. The importance of combined arm and hand use for discharge of interpositus neurons. *European J Neurosci Suppl* 3: 300, 1990.
- Gibson, AR, Horn, KM, Van Kan, PLE. Interpositus discharge during reaching. *Soc Neurosci Abstr* 16(1): 637, 1990.
- Van Kan, PLE, Horn, KM, Gibson, AR. Effects of loading on red nucleus discharge during reaching in the cat. *European J Neurosci Suppl* 4: 317, 1991
- Smith, JJ, Gibson, AR, Horn, KM, Van Kan, PLE. Cerebellar projections to spinal motoneurons. *Soc Neurosci Abstr* 17(2): 1573, 1991.
- Horn, KM, Van Kan, PLE, Gibson, AR. The role of cat red nucleus during reaching. *Soc Neurosci Abstr* 18(1): 407, 1992.
- Van Kan, PLE, Van Duin, B, Gibson, AR, Horn, KM, Voogd, J. Reticular projections of the cat lateral cerebellar nucleus. *Soc Neurosci Abstr* 18(1): 854, 1992.
- Gibson, AR, Van Kan, PLE, Horn, KM. Nuclear cell discharge during reaching. Proceedings of the XXXII Congress of the IUPS, Glasgow, 1-6 August, 1993, Abstract 230.6.
- Porter, CM, Van Kan, PLE, Horn, KM, Bloedel, JR, Gibson, AR. Functional divisions of cat rMAO. *Soc Neurosci Abstr* 19(2): 1216, 1993.
- Horn, KM, Van Kan, PLE, Gibson, AR. Effects of red nucleus stimulation on forelimb EMG activity during reaching in the cat. *Soc Neurosci Abstr* 19(2): 1278, 1993.
- Horn, KM, Van Kan, PLE, Gibson, AR. Modulation of olivary sensitivity during reaching. *Soc Neurosci Abstr* 20(1): 21, 1994.
- Horn, KM, Van Kan, PLE, Ruigrok, TGH, Gibson, AR. Inferior olive sensitivity is reduced by increased cerebellar output. *Soc Neurosci Abstr* 22(2): 1092, 1996.
- McCurdy, ML, Kirsch, KA, Boyce, CJ, Van Kan, PLE. Magnocellular red nucleus discharge in monkey during reaching to grasp in different directions. *Soc Neurosci Abstr* 23(1): 18, 1997.
- Van Kan, PLE, McCurdy, ML. Primate magnocellular red nucleus discharge during reaching with different types of grasp. *Soc Neurosci Abstr* 24(2): 1407, 1998.

- Van Kan, PLE, Jacobson, DR, Boyce, CJ, McCurdy, ML. Interpositus and red nucleus discharge in monkey during reaching to grasp. *Soc Neurosci Abstr* 25(2): 1653, 1999.
- Van Kan, PLE, Ruhland, JL, McCurdy, ML. Primate magnocellular red nucleus discharge during reaching with different types of grasp. *Soc Neurosci Abstr* 26(2): 688, 2000.
- Van Kan, PLE, McCurdy, ML. Cerebellar output neurons control the timing of hand preshaping within reach-to-grasp movements in monkeys. *Soc Neurosci Abstr* 27, Program No. 293.6, 2001.
- Van Kan, PLE, Cheney, PD, Drew, T, Lemon RN. Symposium. Descending motor pathways and the control of whole-limb movements. *Soc Neurosci Abstr* 27, Program No. 339, 2001.
- Pong, MP, Horn, KM, Van Kan, PLE, Gibson, AR. Discharge differences between red nucleus cells during the reach to grasp. *Soc Neurosci Abstr* 28, Program No. 462.7, 2002.
- Erickson, KM, Van Kan, PLE. Kinematics of reach-to-grasp movements in subjects with cerebellar deficits. *Soc Neurosci Abstr* 29, Program No. 597.20, 2003.
- Erickson, K, Van Kan, PLE. Kinematics of reach-to-grasp movements in subjects with cerebellar deficits. American Physical Therapy Association – Combined Sections Meeting, San Diego, CA. Feb. 3, 2006.
- Van Kan, PLE, McCurdy, ML Emergent features of signal processing from cerebellar output to magnocellular red nucleus (RNm). *Soc Neurosci Abstr* 33, Program No. 512.11, 2007.
- Geed, S, McCurdy, ML, Van Kan, PLE. Relative importance of intended hand use versus target location for muscle synergies that transport the hand during reaching to grasp. *Soc Neurosci Abstr* 36, Program No. 492, 2010.
- Geed, S, McCurdy, ML, Van Kan, PLE. Primate magnocellular red nucleus (RNm) encodes muscle synergies during reaching to grasp. *Soc Neurosci Abstr* 37, Program No. 82, 2011.
- Geed, S, McCurdy, ML, Van Kan, PLE. Contribution of Interposito-rubrospinal Pathway to Muscle Synergies Underlying Reaching to Grasp. *Soc Neurosci Abstr* 39, Program No. 650.13, 2013.
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