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### David Regan – curriculum vitae

#### Honours:

Hebb Award 2003 (Canqadian Psychological Association)

Queen Elizabeth II Medal, 2002

Member of the Order of Canada, 2001

Proctor Medal (Association for Research in Vision and Ophthalmology, Washington, D.C.), 2001.

NSERC Award of Excellence, 2000

Foreign Fellow of the Royal Netherlands Academy of Science (Section on Medicine), 1999.

Spinoza Chair for 1999, Faculty of Medicine, University of Amsterdam.

Sir John William Dawson Medal of the Royal Society of Canada, 1997.

Charles F. Prentice Medal, American Academy of Optometry, 1990.

Fellow of the Royal Society of Canada, 1989

Distinguished Research Professor, York University, 1991

I.W. Killam Fellow, 1991-92

I.W. Killam Research Professor, 1978-83

Medical Research Council of Canada Lecture, 1990

Max Forman Prize for Medical Research, Dalhousie University, 1983.

Fellow of the Optical Society of America, 1987.

Fellow of the American Academy of Optometry, 1991.

Fellow of the Canadian Psychological Association 1998.

Ran 100yds. Against Canada, 1955 Played cricket vs. Sri Lanka and Uganda1961

## Education:

Imperial College, London University, 1954-58 King's College, London University, 1958-59

## Degrees:

D.Sc. (London University, 1974)

Ph.D. (Physics, Imperial College, London University, 1964)

M.Sc., D.I.C. (Physics, Technical Optics, Imperial College, London University, 1958)

B.Sc., A.R.C.S. (Physics, Imperial College, London University, 1957)

P.G.C.E. (Education, King's College, London University, 1959)

#### **Employment:**

NSERC/CAE Industrial Research Professor of Vision and Aviation, 1993-2003

Professor of Psychology and Biology, York University, 1987 - 2003

Co-Director, Human Performance in Space Laboratory, Inter-University (York, Toronto, Waterloo) Institute of Space and Terrestrial Science (CRESTech), 1989-2000

Professor of Ophthalmology, University of Toronto, 1987 - . Cross appointments: Professor Medicine, Biomedical Engineering, Psychology.

Playfair Clinician Scientist, Playfair Neuroscience Institute 1989-2003

University of Toronto Neuroscience Programme 1988-

Staff Scientist, Toronto Western Hospital 1988-

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Visiting Professor, Department of Medical Physics and Interuniversity Eye Institute., Amsterdam, 1985

State of N. Jersey Univ. Research Professor of Engineering, Rutgers University, 1985-86

Director, Centre for Research in Vision and Hearing, Faculty of Medicine, Dalhousie University, 1978-87

Professor of Psychology, Dalhousie University, 1976-80

Professor of Ophthalmology, Dalhousie University, 1980-87

Professor of Medicine, Dalhousie University, 1984-87

Professor of Otolaryngology, Dalhousie University, 1980-84

Professor of Physiology, Dalhousie University, 1980-84

Associate Professor of Medicine, Dalhousie University, 1978-84

Consultant in Medical Physics, Camp Hill Hospital, 1979-87

Reader, Research Department of Communication and Neuroscience, University of Keele, England, 1973-75

Senior Research Fellow, Research Department of Communication and Neuroscience, University of Keele, 1965-73

Honorary Appointment to Birmingham Regional Hospital Board, 1968-75

Lecturer in Physics, University of London, 1960-65

# Scientific Advisory Committees:

NSERC Circle, 2002-

Staecie Prize panel (NRC Canada) 1993-1995

National Eye Institute (National Institutes of Health USA.) Member of Vision A and B grants review panels.

National Eye Institute (National Institutes of Health USA). Review Panel member, Multi Centre Amblyopia Assessment Panel 1988.

National Eye Institute (National Institutes of Health, USA) Sensory and Motor Disorders panel drafting the NEI 5-year Ophthalmology and Vision Plan for 1983-87.

National Research Council (USA) steering committee on visual simulation in flight training, 1979.

Advisory panel on visual test indications for cataract surgery, American Academy of Ophthalmology, 1990 & 1992

Poser Committee, convened by NIH and MS Society to re-define the diagnostic criteria for multiple sclerosis, 1982.

Faculty of Medicine Research Committee, Dalhousie University, 1980-84.

Research Planning Committee, Dalhousie University Medical School

Ethical Committee, Halifax Infirmary, 1980-84.

Member-at-large, Optical Society of America Committee for Vision and Physiological Optics, 1982-85

#### Research Interests:

Visual and auditory perception and psychophysics; computational models.

Stimulus-evoked electrical and magnetic brain responses in human.

Ophthalmological and Neuro-ophthalmological disorders: multiple sclerosis, Parkinson's disease, glaucoma, amblyopia, cataract.

Visual instrumentation in diagnosis and treatment.

Visual skills; highway safety; visual assessment of pilots and drivers; visual factors in aviation, flight training and simulation.

Visual development in human infants.

Computer vision, image understanding and mathematical visual models

Eye movements, in normal subjects and in patients with neuro ophthalmological disorders.

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Hearing disorders.

#### **Industrial Consultancies:**

1970-75 Consultant and Inventor's Contract with Wilkinson-Graviner group of companies, to invent paramedical instrumentation in visual and other diseases, aviation electronics and fire warning and fire-extinguishing devices.

1880-86 Consultant and inventors contract with Westinghouse Electric Corp, chiefly on visual factors in industrial safety and paramedical instrumentation

## Current employment of past graduate students, PDFs, and medical residents

R.P.Kohly M.A., Ph.D. (M,D.student, MacMaster Univ.)

- R. Gray M.A.; Ph.D. (Assistant Prof., U. of Arizona)
- C. Portfors Ph.D. (Assistant Prof., U. of Washington)
- A. Vincent PDF (Senior Ergonomist, Transport Canada)
- S. Hamstra Ph.D. (Assistant Prof. Dept. Surgery, U. Of Toronto)
- S. Kaushal M.A. (Attorney).
- D. Giaschi PDF (Associate Prof., U.B.C.)
- T. Simpson PDF (Associate Prof., Waterloo U.)
- P. He PDF (Engineer, Hewlett-Packard)
- A. Kothe PDF (Associate Prof., U. Montreal)
- R. Kruk Ph.D. (R.and.D. Manager, CAE).
- J. Raymond Ph.D. (Director Vision Centre, Cardiff University)
- C. Maxner, MD, FRCP(C). (Head Neurology, Halifax Infirmary)
- P. Price, MD. FRCS(C) (Ophthalmologist)
- D. Neima, MD, FRCS(C) (Ophthalmologist)
- B. Tansley, PDF (Professor, Concordia University)
- K.I Beverley Ph.D. (Engineer, Geological Service)
- C.W. Tyler, Ph.D. (Director of Research, Smith-Kettlewell Institute)
- R. Galvin MD FRCP (Consultant Neurologist, Dublin)

# External Reviewer: Granting Agencies

Air Force Office of Scientific Research (U.S.A.)

Alberta Heritage Fund for Medical Research

Australian Medical Research Council

E. A. Baker Medical Research Council

Foundation for Eye Researc

Israel Medical Research Council

Medical Research Council of Canada

Medical Research Council of Great Britain

Multiple Sclerosis Society of Canada

Multiple Sclerosis Society of Great Britain

Natural Science and Engineering Research Council of Canada

National Eye Institute (U.S.A.)Ad hoc reviewer, Vis.A & Vis.B.

National Institute of Mental Health (U.S.A.)

National Science Foundation (U.S.A.)

Netherlands Organization for Scientific Research

Retinitus Pigmentosa Eye Research Foundation

U.S. Navy Office of Scientific Research

Wellcome Trust

# Editorial Boards of Scientific Journals:

Vision Research (to 2003)

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Spatial Vision

Ophthalmic & Physiological Optics

Clinical Vision Research

Electroencephalography and Clinical Neurophysiology (to 1983)

### External Referee: Journals:

Aerospace Medicine and Space Science

Archives of Ophthalmology

Archives of Neurology

Behavioural Brain Research

**Biological Cybernetics** 

Brain

Brain Research

Canadian Journal of Ophthalmology

Canadian Journal of Psychology

Canadian Journal of Neurological Sciences

Clinical Vision Science

Cognition

Current Eye Research

Electroencephalography and Clinical Neurophysiology

Experimental Brain Research

Hearing Research

**Human Factors** 

Investigative Ophthalmology

Journal of the Acoustical Society of America

Journal of Experimental Psychology

Journal of Neurology, Neurosurgery and Psychiatry

Journal of Neurophysiology

Journal of Neuroscience

Journal of Sports Sciences

Journal of the Optical Society of America

Medical Electronics and Biomedical Engineering

Nature

Neurology

Neuro Ophthalmology

Optometry and Vision Science

Pediatric Ophthalmology

Perception

Perception and Psychophysics

Proceedings of the Institute of Electrical Engineers

Psychological Reviews

Science

**Spatial Vision** 

Vision Research

### Membership of Societies:

Canadian Psychological Association (CPA)

Association for Research in Vision and Ophthalmology (ARVO)

Optical Society of America

American Academy of Optometry

International Society for Clinical Electrophysiology

**EEG Society** 

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Experimental Psychology Society International Colour Group

### Invited Colloquia at Universities and Hospitals:

Academic Hospital Amsterdam, Inter-University Eye Institute (1978, 1983, 1985)

Albert Einstein College of Medicine (1968)

Aston University (1991)

Australian National University, Canberra (1984)

Australian National Vision Research Institute (1984)

Bascom Palmer Eye Institute (1978, 1981)

Bell Labs (1971, 1978)

Biomagnetic Technologies Co. (1988)

Boeing Aircraft Co. (1980)

Bolling Air Force Base, Washington (1980, 1987)

California Institute of Technology (1980)

Cambridge University (1970, 1971, 1974)

City College of New York (1984)

Concordia University (1981)

Dalhousie University (1975, 1976, 1982, 1984, 1990)

Defense and Civil Institute of Environmental Medicine (1968)

Durham University (1980)

Eve Research Institute, Boston (1988)

Foothills Hospital, Calgary (1982)

Halifax Infirmary (1979, 1980, 1982)

Hospital for Sick Children, Toronto (1987)

Imperial College, London (1996)

Institute of Perception, Soesterberg (1961, 1985)

John Hopkins School of Medicine (1968, 1971, 1975, 1990)

Keele University (1964, 1968, 1969, 1996)

Leuvan University (1985)

London University (1966, 1979, 1980, 1984)

McMaster University (1981)

Manchester University (1974)

Massachusetts Institute of Technology (1971, 1974, 1979, 1983, 1987, 1990)

Max Planck Institute, Freiburg (1974)

Max Planck Institute, Gottingen (1974)

Max Planck Institute, Tubingen (1983)

Mayo Clinic (1966)

McGill University (1982)

McGill University School of Medicine (1983)

Melbourne University (1992)

Monash University (1984)

Montreal Neurological Institute (1984)

Mount Allison University (1984)

Mount Sinai Medical Center, New York (1981, 1983)

NASA-Ames, Moffat Field (1980)

National Research Council Aviation Section, Ottawa (1988)

New York University (1979, 1982, 1984)

Nicolet Co., Wisconsin (1979)

Nijmegen University (1985)

North Eastern University, 1968

North Western University, 1966, 1968 Oxford University (1974) Playfair Institute, Toronto (1988) Oueens University (1978, 1982) Rice University (1971) Rochester University, Vision Institute (1978, 1982, 1984, 1991) Rutgers University (1983, 1985) Simon Fraser University (1978, 1986) Smith-Kettlewell Medical Institute (1971, 1983, 1984) Stanford University (1966) St. Luke's-Rush Presbyterian Medical Center, Chicago (1971) Sunnybrook Hospital, Toronto (1989) Sydney University (1992) Tufts University (1982, 1984) University of Alabama (1995) University of Amsterdam (1965, 1968, 1985, 1999) University of Auckland (1992) University of British Columbia (1985) University of California, Berkeley (1971, 1977, 1984, 1988, 2001) University of California, Los Angeles (1966) University of California, Santa Barbara (1985) University of California, San Diego (1978, 1984) University of Chicago, (1978, 1981) University of Gottingen (1974) University of Illinois (1968, 1974) University of Louisiana, New Orleans (1978) University of Manitoba (1983, 1992) University of Maryland (1989) University of Miami (1968, 1978) University of Otago, Dunedin (1992) :University of Michigan (1971) University of Montreal (1978, 1992) University of New South Wales (1992) University of North Carolina (1971) University of Oregon (1979) University of Ottawa (1985) University of Paris (1978) University of Texas, Houston (1968, 1975, 1992) University of Toronto Department of Psychology (1987, 1990, 1992) Department of Otolaryngology (1988) Department of Computer Science (1988) Department of Medical Physics (1990) Department of Ophthalmology (1987, 1988, 1989) Institute of Biomedical Engineering (1991) University of Utah (1981) University of Wales (1972) University of Waterloo (1973, 1988) University of Western Australia (1984) University of Western Ontario (1989) University of Wisconsin, Madison (1981) U.S. Navy Human Factors, Orlando (1983) VA Medical Center, Salt Lake City (1981, 1985)

Westinghouse Co., Pittsburgh (1981)
Williams Air Force Base, Phoenix (1980)
Wright-Patterson Air Force Base, Dayton (1978, 1996)
York University Department of Psychology (1974, 1985, 1986, 1988,1991,2000)
Department of Physics (1988)
Department of Physical Education (1988)