

CURRICULUM VITAE

DAVID HOWARD TURPIN
President
University of Alberta

Citizenship Canadian

Date of Birth 14 July 1956

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2-24 South Academic Building
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Edmonton, Alberta
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EDUCATION

BSc	1977	University of British Columbia	(Cell Biology)
PhD	1980	University of British Columbia	(Botany/Oceanography)

Titles of Theses Presented for Graduate Degree

PhD thesis “Processes in nutrient based phytoplankton ecology”
Supervisor Professor P.J. Harrison
University of British Columbia, 1980.

BSc thesis “Sexuality and cyst production in Pacific strains of the marine dinoflagellate Gonyaulax tamarensis”
Supervisor Professor F.J.R. Taylor
University of British Columbia, 1977.

EMPLOYMENT AND EXPERIENCE

2015–	President and Vice-Chancellor, University of Alberta
2013–2015	Professor of Biology, University of Victoria
2000–2013	President and Vice-Chancellor, University of Victoria
1995–2000	Vice-Principal (Academic), Queen’s University
1993–1995	Dean, Faculty of Arts and Science, Queen’s University
1991–1993	Professor and Head, Department of Botany, University of British Columbia
1990–1991	Professor, Department of Biology, Queen’s University

1985–1990	Associate Professor, Department of Biology, Queen’s University
1981–1985	Assistant Professor, Department of Biology, Queen’s University
1980–1981	Vice-President, Sigma Resource Consultants, Vancouver, B.C.
1980	Research Associate, Simon Fraser University

Awards and Distinctions

Honorary Doctor of Laws, University of Manitoba	2015
Queen’s Diamond Jubilee Medal	2012
Member, Order of Canada	2010
ISI Highly Cited Researcher	2004
Queen’s Golden Jubilee Medal	2002
Fellow, Royal Society of Canada	1998
Who’s Who in Canada	1997
Who’s Who in Science and Engineering	1996
Distinguished Visiting Scholar, University of Adelaide	1996
Who’s Who in America	1995
Certificate of Recognition, American Society of Plant Physiologists	1992
Darbaker Prize in Phycology, American Botanical Association	1991
Award of Merit, UBC Alumni Association	1990
Distinguished Professor, Ottawa Branch, Queen’s Alumni Association	1990
C.D. Nelson Award, Canadian Society of Plant Physiologists	1989
NSERC E.W.R. Steacie Memorial Fellowship	1989–1990
Queen’s Alumni Award for Excellence in Teaching	1989
NSERC Industrial Post-doctoral Fellowship	1980–1981
NSERC Post-doctoral Fellowship (declined)	1980
Captain T.S. Byrne Memorial Scholarship (Awarded by the UBC Department of Oceanography to an outstanding PhD graduate)	1980
Natural Sciences and Engineering Research Council (NSERC) Post-graduate Scholarship	1979–1981
Edith Ashton Memorial Scholarship (Awarded by the UBC Department of Botany to an outstanding graduate student in the field of marine or freshwater botany)	1979
National Research Council Post-graduate Scholarship	1978–1979
UBC Summer Research Scholarship	1978

Responsibilities as President and Vice-Chancellor at University of Alberta (2015 – present)

As Chief Executive Officer and Vice-Chancellor, the President positions the University such that its standing as a major comprehensive and research-intensive institution is preserved, enhanced, and secured. The President creates and implements a vision to build and advance the University of Alberta and exercises oversight over operational and fiscal management of the University. Through all his dealings, the President fosters academic, research, teaching and service excellence as well as success of students and a positive student experience. As the chief representative and spokesperson for the institution, the President champions advancement initiatives, advocates to all orders of government and sets a strong relationship with the Board of Governors, University of Alberta Senate and Alumni Association. The President encourages innovative and efficient administration of the entire institution and ensures the harmonious and collaborative work of the various governing bodies within the institution to further the University's vision of excellence. Some of the committees served on in this role are:

Chair, Selection Committee, Principal, Peter Lougheed Leadership College	2017
Chair, Selection Committee, Vice-President (University Relations)	2017
Member, Advancement Council	2016 – present
Chair, Selection Committee, Vice-President (Research)	2016 – 2018
Chair, Selection Committee, Vice-President (Facilities and Operations)	2015 – 2016
Chair, Selection Committee, Vice-President (Finance and Admin.)	2015 – 2016
Chair, Selection Committee, Provost and Vice-President (Academic)	2015
Chair, Selection Committee, Vice-President (Advancement)	2014 – 2015
Honorary President, Alumni Council	2015 – present
Member, University of Alberta Board of Governors	2015 – present
Member, Board of Governors Committees	2015 – present
Chair, Chairs' Council	2015 – present
Chair, Dean's Council	2015 – present
Chair, General Faculties Council (GFC)	2015 – present
Chair, General Faculties Council Executive	2015 – present
Chair, President's Executive Committee – Operational (PEC-O)	2015 – present
Chair, President's Executive Committee – Strategic (PEC-S)	2015 – present
Chair, President's Visiting Committees	2015 – present
Member, Senate Honorary Degree Committee	2015 – present
Member, University of Alberta Senate	2015 – present
Director, University of Alberta Properties Trust	2015 – present
Member, National Institute of Nanotechnology (NINT) Council	2015
Member, Council of Post-Secondary Presidents of Alberta	2015 – present
Member, Peter Lougheed Leadership Initiative (PLLI) Advisory Board	2015 – present
Chair, Killam Trusts and Killam Scholarship Committee	2015 – present

Service

Board of Directors, Universities Canada	2016 – present
Research Advisory Committee, Universities Canada	2016 – present
Board of Directors, Worldwide Universities Network	2016 – present
Member, the Mayor’s Business Roundtable Program	2015 – present
Board Member, Ocean Networks Canada (ONC)	2015 – present
Member, World Universities Network (WUN) Partnership Board	2015 – present
Chair, World University Service of Canada (WUSC)	2015 – 2018
Vice-Chair, U15	2015 – present
Vice-Chair, U15 Executive Heads	2015 – present
Member, U15 Executive Heads	2015 – present
Member, Standing Advisory Committee on University Research, Universities Canada	2015 – present
Member, Universities Canada	2015 – present
Member of Expert Panel to Review the Post-Secondary Strategic Mandate Agreements in the Province of Ontario	2012 – 2013
Member of the team that conducted an external review of Genome Canada	2012
Vice-Chair, World University Service of Canada (WUSC)	2011 – 2015
Honorary co-chair and panellist at the 2011 Canadian Research Data Summit	2011
Member, Research Universities’ Council of British Columbia (formerly TUPC)	2008 – 2013
Member, Board of Governors, Business Council of British Columbia	2008 – 2013
Chair, Canadian Research Knowledge Network	2006 – 2009
Chair, AUCC Standing Advisory Committee on International Relations	2006 – 2010
Chair, 2006 Gold Medal Selection Panel, The Professional Institute of the Public Service of Canada	2006
Chair, AUCC Visiting Committee to Ontario College of Art and Design	2005 – 2006
Chair, The University Presidents’ Council	2005 – 2008
Member, Greater Victoria Community Olympic Committee - 2010	2003 – 2006
Member, Minister of National Defence Education Advisory Board	2003 – 2006
Member, Discovery Foundation Board	2003 – 2015
Member, Board of Directors for Canadian Advanced Foods and Biomaterials Network	2003 – 2005
Division Chair, Loaned Representatives, United Way of Greater Victoria	2003 – 2005
Member, TD Canada Trust Scholarship Selection Committee	2003
Member, Queen’s Golden Jubilee Award Adjudication Committee	2002
Member, Association of Universities and Colleges of Canada Board	2002 – 2011
Chair, United Way of Greater Victoria Campaign	2002 – 2003
Member, Order of British Columbia Advisory Council	2002 – 2003
Member, NSERC Reallocations Committee	2002 – 2003

Division Chair, Leadership Giving, United Way of Greater Victoria	2001
Patron, Victoria Literary Arts Festival Society	2001
Board Member, B.C. Addiction Foundation	2001 – 2003
Chair, University Public Sector Employers' Association of B.C.	2001 – 2011
Member, The University Presidents' Council of British Columbia (TUPC; for 2008, see Research Universities' Council of BC)	2000 – 2008
Member, Victoria Ocean Observatory Committee	2000 – 2004
Member, AUCC Standing Advisory Committee on University Research	2000 – 2005
Member, AUCC Ad Hoc Advisory Committee to Develop a Communication Strategy for Enhancing Public Understanding of the Value of a Broad Undergraduate Education	2000
Member, Premier's Advisory Committee on Science and Technology	2000
Member, Interim Board of Directors, BIOCAP Canada	1999
University Professors Selection Committee, University of Toronto	1999
External Review Committee, Biological Sciences, University of Toronto	1999
COU – Working Group on Teacher Education (Chair)	1999
Ontario Biotechnology Task Force	1998
Review Committee, Department of Biological Sciences, University of Wisconsin - Milwaukee	1998
Review Committee, Faculty of Arts and Science, University of Toronto	1997
Council of Ontario Universities Task Force on Collaboration and Implementation	1996 – 1998
National Vice-Presidents (Academic)	1995 – 2000
Ontario Council of Academic Vice-Presidents	1995 – 2000
Advisory Board, Journal of Experimental Botany	1995 – 1998
Editorial Board, Plant Cell and Environment	1994 – 1996
Canadian Council of Deans of Arts and Science	1993 – 1995
Review Committee for the Faculty of Science, University of Ottawa	1993
Co-Chair, Symposium: Interactions of Nitrogen Assimilation with Carbon Metabolism, ASPP/CSPP Meeting, Minneapolis	1993
Editorial Board, Journal of Phycology	1992 – 1995
CAFAD (Canadian Association of Fine Arts Deans)	1993 – 1995
CCDS (Canadian Council of Deans of Science)	1993 – 1995
Canadian Council of University Biology Chairs	1991 – 1993
Executive Member	1991
Vice-President	1992 – 1993
Co-Chair, Second International Symposium on Inorganic Carbon Utilization by Aquatic Photosynthetic Organisms	1990
Program Committee for Great Lakes Course – Ontario Science Centre	1989 – 1990
Editorial Board, Plant Physiology	1988 – 1992
Vice-President, Great Lakes Tomorrow	1988 – 1991
Session Chair, Canadian Society of Plant Physiology	1986
Founding Member, Collins Watershed Association (a citizens' group promoting integrative watershed development)	
Member, Resource Management and the Watershed Planning and Regulation Advisory Boards of the CRCA	1984 – 1986

City of Kingston representative to the Cataraqui Regional Conservation Authority (CRCA). The authority is responsible for administering water resource-related issues in a major watershed in Eastern Ontario.	1984 – 1986
Co-Chair of the Organizing Committee for the Canadian Society of Plant Physiologists - Winter Meetings, Kingston	1984
Session Chair and Convener, ASLO, New Orleans	1984

Honorary Positions

Honorary Member, Rotary Club of Victoria, BC (Club 90)	2002 – 2013
Honorary Advisor, Soong Ching Ling Children’s Foundation Limited	2001 – 2010
Honorary Officer, Vancouver Institute	2001 – 2013
Honorary Member, Golden Key University of Victoria Chapter	2000 – 2013
Honorary President, Queen’s Arts and Science Undergraduate Society	1993 – 1994
Honorary President, Queen’s Alma Mater Society	1989 – 1990
Honorary President, Queen’s Arts and Science Undergraduate Society	1984 – 1985

Responsibilities as President and Vice-Chancellor at University of Victoria (2000–2013)

As the chief executive officer, the president and vice-chancellor of the University of Victoria is responsible for providing strategic leadership in all aspects of the university. The president reports to the 15-member board of governors and serves as an ex-officio, voting member. The president also chairs the senate of the university. The president articulates an informed vision of higher education and the university, and communicates this vision widely and effectively—to the internal university community (students, faculty, staff, and alumni), to government, to research funding agencies, to potential patrons, and to the general public. As a leader, advocate, and administrator, the president serves on a number of committees and boards, some of which are outlined below:

Chair, Selection Committee, Vice-President Research	2011 – 2012
Chair, Selection Committee, Vice-President External Relations	2011 – 2012
Chair, Selection Committee, Vice-President Academic and Provost	2009 – 2010
Chair, Selection Committee, Director, Pacific Institute for Climate Solutions	2008 – 2009
Chair, Pacific Institute for Climate Solutions Executive Committee	2008 – 2009
Chair, Pacific Institute for Climate Solutions Advisory Board	2008 – 2010
Chair, Selection Committee, Vice-President Research	2007
Member, University of Victoria Properties Investments Inc.	2006 – 2009
Member, Heritage Realty Properties Ltd.	2006 – 2009
Chair, Selection Committee, Vice-President Finance and Operations	2006
Chair, Selection Committee, Vice-President External Relations	2005
Chair, Selection Committee, University Secretary	2004
Chair, Selection Committee, Director of the Office of Human Rights	2003 – 2004
Member, Hong Kong Foundation for the University of Victoria	2002 – present

Chair, Committee for the Appointment and Review of the Vice-President Research	2002 – 2003
Chair, Selection Committee, Vice-President External Relations	2001 – 2002
Chair, Selection Committee, Dean of Law	2001 – 2002
Member, University of Victoria Board of Governors and Board Committees	2000 – present
Chair, University of Victoria Senate and Member, Senate Committees	2000 – present
Chair, Executive Council	2000 – present
Chair, President’s Advisory Council	2000 – present
Chair, Planning and Priorities Committee	2000 – present
Officer for the Foundation for UVic (non-voting)	2000 – present
Member, Island Pacific Institute Foundation	2000 – present
Member, UVic Foundation	2000 – present
Member, U.S. Foundation for the University of Victoria	2000 – present
Chair, Selection Committee, Vice-President Academic and Provost	2000 – 2001

Responsibilities as Queen’s University Vice-Principal (Academic) (1995–2000)

The vice-principal (academic) at Queen’s University is responsible for all academic and academic support units, including the faculties of Applied Science, Arts and Science, Education, Law, Health Sciences; Schools of Business, Graduate Studies, and the Office of the Dean of Student Affairs. In addition, the vice-principal (academic) is responsible for all units that have a bearing on the university’s academic mission, including Agnes Etherington Art Centre, Archives, Ban Righ Foundation, Information Technology Services, French Centre, Instructional Development Centre, International Study Centre at Herstmonceux, McGill-Queen’s Press, Performing Arts, Libraries, Queen’s Quarterly, University Registrar, and Resources Planning.

Advisory Committee to Select an Academic Director: International Study Centre	1999
Chair, Advisory Committee, Dean, School of Business	1999
Chair, Advisory Committee, Dean, Faculty of Education	1999
Chair, Advisory Committee, Dean, School of Graduate Studies	1999
Chair, Advisory Committee, Dean of Student Affairs	1999
Principal’s Advisory Committee on Budgeting	1999
Chair, Physical Capacity Steering Committee	1999
Chair, Committee to Appoint Director of the Instructional Development Centre	1999
Chair, Advisory Committee, University Librarian	1999
Chair, Advisory Committee, University Archivist	1999
Chair, Enrolment Planning Task Force	1999
Principal’s Advisory Committee to Select a Director, School of Medicine	1998
Chair, Computer/Software/Electrical Engineering Task Force	1998 – 1997
Chair, Advisory Council to the Instructional Development Centre	1998 – 1999
Joint Committee on the Administration of the Agreement (JCAA)	1998 – 1999

Chair, University Promotions Advisory Committee	1997 – 2000
Advisory Committee to Select an Academic Director: International Study Centre	1997
Senate Educational Equity Committee (ex officio)	1997
Advisory Committee for the Vice-Principal (Advancement)	1997 – 1998
Executive Committee, CFI/OCF	1997 – 2000
Queen’s Representative on International Study Centre Charitable Trust Campaign Steering Committee	1997
Ad hoc Committee on Universities (CANARIE)	1997 – 2000
Chair, Principal’s Advisory Committee to Select a Dean of Law	1997 – 1998
Advisory Committee for Associate Dean (Health Sciences) and Director, School of Nursing	1997 – 1998
Member of Senate (ex officio)	1995 – 2000
Joint Committee on the Administration of the Agreement (JCAA)	1997 – 1998
Chair, University Promotions Committee	1997 – 2000
Budget Planning Task Force	1996
Chair, Advisory Committee on the University Libraries	1996
Chair of the Board, McGill Queen’s University Press	1996 – 1997
	1999 – 2000
Chair, Health Sciences Task Force	1996
Chair, International Studies Centre Program Committee	1996
Board of Directors, CFRC-FM Radio Station	1995 – 2000
Collective Bargaining Team (QUFA)	1995 – 2000
Collective Bargaining Steering Committee (CUPE Locals)	1995 – 2000
Committee of Principal and Vice-Principals	1995 – 2000
Committee of Principal, Vice-Principals and Deans	1995 – 2000
Chair, Committee of Vice-Principal (Academic) and Deans	1995 – 2000
Executive Committee, University Council	1995 – 2000
Principal’s Advisory Committee to review the Office of the Dean of Women	1995 – 1996
Principal’s Advisory Committee to select a Dean of Student Affairs	1995
Principal’s Advisory Committee to select a Dean of Applied Science	1995
Principal’s Advisory Committee to select a Dean of Arts and Science	1995
Principal’s Advisory Committee to select a Dean of Medicine	1995
Advisory Committee to select a Registrar (Chair)	1995
Advisory Committee to select a Director of Computing and Communications Services (Chair)	1995
Advisory Committee to select a Resident Director of the International Study Centre	1995
Board of Directors, McGill Queen’s University Press	1994 – 2000
Senate attendee	1995 – 2000
Board of Trustees attendee	1995 – 2000
Chair, Senate Committee on Academic Development	1995 – 2000
Chair, Senate Committee on Internal Academic Reviews	1995 – 2000
Chair, Senate Sub-Committee on Principles & Priorities	1995
Biosciences Executive Committee	1993 – 2000

Responsibilities as Queen’s University Dean of Arts and Science (1993–1995)

The Dean of Arts and Science at Queen’s University is responsible for all aspects of administration of the Faculty of Arts and Science. The Faculty comprised approximately 500 faculty, and 6,500 full-time and 3,500 part-time students. It is composed of 25 departments or schools, one institute, the Division of Part-Time Studies (including correspondence), and Student Services.

Board of Directors, McGill /Queen’s University Press	1994 – 1995
Committee of Deans and Vice-Principals	1993 – 1995
Chair, Development Subcommittee	1993 – 1995
Chair, Committee of Departments	1993 – 1995
Faculty Board	1993 – 1995
Senate	1993 – 1995
Senate Committee on Academic Development	1993 – 1995
Admissions Committee	1993 – 1995
Degree Committee	1993 – 1995
Bioscience Executive Committee	1993 – 1995
Curriculum Committee	1993 – 1995
Board of Studies	1993 – 1995
Art Conservation Review Committee	1993 – 1994
Academic Orientation Committee	1993 – 1995
Headship Selection Committees:	
Economics	1993
Geological Sciences	1993
Computing and Information Science	1994
Art	1994
English	1994
Chemistry	1994
Women’s Studies	1994
Sociology	1994
Film Studies	1994
Classics	1994 – 1995
Mathematics & Statistics	1994 – 1995
Philosophy	1994 – 1995
Environmental Studies	1994 – 1995
German	1995
Chair, Associate Deanship Selection Committees	1993, 1994

UBC Administrative Responsibilities (1991–1993)

Steering Committee for Tri-Council EcoResearch Fraser Valley Green Plan Proposal	1992 – 1993
Coordinated Development of Centre for Biodiversity Proposal	1992 – 1993
Management Committee, Western Canadian University Marine Station	1992 – 1993

Dean's Advisory Committee on Appointment, Promotion and Tenure	1991 – 1993
Plant Growth Facilities Building Committee	1991 – 1993
Killam Trust Committee	1991 – 1993
Ex officio on all Department of Botany committees	1991 – 1993
Faculty of Science Teaching and Learning Committee	1991 – 1993
Forest Science Building Committee	1991 – 1993
Forest Science Department Headship Search Committee	1992

Queen's University Administrative Responsibilities (1981–1991)

University and Faculty:

Board of Directors, Queen's School of Policy Studies	1989 – 1991
Chair, Principal's Advisory Committee on Instructional Development	1988 – 1991
Principal's Advisory Committee, Queen's National Scholars	1985 – 1991
Alumni Advisory Board	1989 – 1991
Student Team on Alumni Relations: Send off speaker	1989
Faculty of Arts and Science Admissions Committee	1984 – 1987
Technology Review Subcommittee	1986 – 1991
University Committee on Continuing Education for Science Teachers	1985
Steering Committee, 1986 Conference on Teaching and Learning	1985 – 1986
Program Steering Committee, University Council	1987 – 1991

Biology Department:

Member of Staffing, Planning and Review Committee	1985 – 1989
Member of the Tenure, Review, Appointment, Promotion and Termination Committee	1983 – 1986
Chair, Curriculum Review Committee	1984 – 1985
Department of Biology, Headship Search Committee Member	1984
Academic Advisor	1984 – 1989
Limnologist Search Committee Member	1984
Chairman, Employment Opportunities Committee	1982 – 1988
Herbarium Committee	1984

Management of Consulting Projects

The vice-president's position at Sigma Resource Consultants (about 25 employees) involved co-ordination of a wide range of environmental studies including government and client liaison, human resource management, and financial control. Projects included:

Aquatic resource studies for Cyprus Anvil Mining Corporation with regard to development of the Cirque deposit in northern B.C. This included a complete hydrological assessment of three midsize northern B.C. rivers, as well as evaluation of the water chemistry and the fisheries resources.

Fisheries studies for the Portage Mountain to Tumbler Ridge transmission line, including environmental inventory and impact assessment (Stage II study).

Fisheries studies for the proposed B.C. Hydro northern transmission lines. This included inventories for the northwest (Skeena, Nass, and Stikine drainages), southern (Lillooet, Fraser, Chilcotin, Nazako, and Nechako drainages), and northern (Liard and Peace drainages) sections of the proposed routes.

Fisheries Inventories for the Squamish, Lillooet, Seton, and Fraser rivers with regard to B.C. Hydro's proposed Kelly Lake/Cheekye transmission lines.

Aquatic Studies program at Bullmoose Creek and Brunt River for Teck Corp. This study included the assessment of fish distribution, migration, spawning and rearing areas, and a complete hydrological assessment and prediction of the 200-year flood plain.

Options for the mitigation of fisheries impacts associated with the Matsqui River flood control project.

Other consulting projects: Pleasure Boat Grey Water Discharge, Ontario Marine Operator Association; Water Quality Analysis, Proctor and Gamble.

Professional Development

BC CEO Forum	2017 – present 2012 – 2013
Association of Commonwealth Universities Conference of Executive Heads	2008
Conference on Statistics, Science and Public Policy – Education, Economics and Politics	2005
Choices and Responsibilities: Higher Education in the Knowledge Society, OECD	2004
Conference on Statistics, Science and Public Policy – Science, Ethics and the Law	2003
CASE Seminar for Advancement and Leadership for Presidents	2003
Creating Dialogue: The Role of Urban and Metropolitan Universities in Fostering Civil Society, Coalition of Urban and Metropolitan Universities	2002
Conference on Statistics, Science and Public Policy – Environment, Health and Globalization	2002
Senior University Administrator's Course, CHERD	1994
Part-time first-year MBA, Queen's University	1986 – 1989

Memberships in Professional and Learned Societies

American Association for Advancement of Science
 Psychological Society of America
 American Society of Limnology and Oceanography
 Canadian Society of Plant Physiologists
 American Society of Plant Physiologists

Reviewer

Natural Sciences and Engineering Research Council
Plant, Cell and Environment
Plant Physiology
National Science Foundation
Journal of Phycology
Plant and Cell Physiology
Canadian Journal of Fisheries and Aquatic Sciences
Canadian Journal of Botany
Canadian Journal of Microbiology
Limnology and Oceanography
Archives of Biochemistry and Biophysics
Journal of Experimental Botany
Journal of General Microbiology
Planta
Journal of Plant Physiology
Marine Biology

NSERC Research Grants Received

2003–04	Individual	NSERC	Discovery	\$ 52,500/yr
2002	Group	NSERC	Strategic	\$127,000/yr 1 \$129,500/yr 2 & 3 \$ 79,500/yr 4
1999	Individual	NSERC	Equipment	\$ 11,173
1999–2003	Individual	NSERC	Research	\$105,000/yr
1994–1997	Group	NSERC	Collaborative	\$192,840/yr 1 \$117,340/yr 2 & 3
1994–1999	Individual	NSERC	Research	\$100,335/yr
1991–1994	Individual	NSERC	Research	\$100,335/yr
1989–1991	Individual	NSERC	Operating	\$145,000/yr
1989–1992	Group	NSERC	Strategic	\$293,000/yr
1989	Individual	NSERC	Equipment	\$ 54,000
1988–1989	Individual	NSERC	Operating	\$ 61,000/yr
1988–1989	Group	NSERC	Infrastructure	\$ 21,000/yr
1988–1989	Individual	NSERC	Equipment	\$ 19,000/yr
1987–1988	Individual	NSERC	Equipment	\$ 31,000
1986–1987	Group	NSERC	Major Equipment	\$179,000
1985–1988	Individual	NSERC	Operating	\$ 31,000/yr
1985–1986	Individual	NSERC	Equipment	\$ 26,000
1984–1985	Individual	NSERC	Operating	\$ 16,000/yr
1983–1984	Individual	NSERC	Operating	\$ 15,000/yr
1982–1983	Individual	NSERC	Operating	\$ 15,000/yr
1982–1983	Individual	NSERC	Equipment	\$ 31,000

Teaching Responsibilities

Queen's University (1995–2000):

Biology 813	Photosynthesis and Nitrogen Metabolism	1996–2000
Biology 101	Cell Biology	1996–2000

University of British Columbia (1991–1993):

Biology 101	Principles of Biology	1992–1993
Biology 350	Cell Physiology	1992–1993
Botany 501	Seminar in Botany	1991–1992
Botany 530	Plant Metabolic Physiology	1991–1992

Queen's University (1981–1991):

Biology 849/881	Environmental Issues: the Ecology and Economics of Freshwater Aquatic Ecosystems	1990
Biology 111	Ecology and the Environment, Course Coordinator	1990
Biology 301	Plant Physiology, Course Coordinator	1990
Biology 813	Photosynthesis and Nitrogen Metabolism	1981–1991
Biology 950	Decisions for the Great Lakes - Lake Ontario: An Interdisciplinary Course for Decision Makers	1986–1988
Biology 200	Organismal Biology, Course Coordinator	1982–1986
	Limnology Field Course, Course Coordinator	1982–1984
Biology 101	Cell Biology	1985–1989

Bamfield Marine Research Station:

Mar. Sci. 401	Algal Physiology: Lecturer and Laboratory Instructor	1979
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Theses Supervised

Heather Shearer (MSc). Molecular and biochemical characterization of NADP-dependent malic enzyme from developing Ricinus communis endosperm. 2000.

Jennifer Moustgaard (MSc). Glucose-6-phosphate dehydrogenase from Chlamydomonas reinhardtii. 1998.

Lena McPhie (MSc). A role for reductant demand in the regulation of carbon metabolism in the green alga Chlamydomonas reinhardtii. 1997.

D. Gauthier (PhD). Interactions between phosphate uptake and assimilation with respiration and photosynthesis in the phosphate-limited green alga Selenastrum minutum. 1996.

U. Pott (MSc). Bioindication of atmospheric heavy metals in the lower Fraser Valley, BC, Canada. 1995.

- A. Walton (MSc). Carbon allocation patterns in plants and plant ecosystems. 1995.
- K. Vlossak (MSc). Effects of different rates of nitrogen assimilation on carbon metabolism. 1993.
- J. Holmes (PhD). Interactions between respiratory carbon flow and photosynthetic light Harvesting in the green alga Selenastrum minutum. 1993.
- M. Lin (PhD). Purification and characterization of phosphoribulokinase and phosphoglycerate kinase from the green alga Selenastrum minutum. 1991.
- G. Vanlerberghe (PhD). Anaerobic carbon and nitrogen metabolism in a green alga. 1990.
- H.G. Weger (PhD). Interaction between N assimilation and respiratory metabolism in a green alga. 1989.
- W.P. Mayo (MSc). Photosynthetic adaptation to low inorganic carbon by the cyanobacterium Synechococcus leopoliensis: The role of DIC transport and RuBP regeneration. 1988.
- M. Lin (MSc). Purification and characterization of pyruvate kinase isozymes from the green alga Selenastrum minutum. 1988.
- D.G. Birch (MSc). Nitrate and ammonium induced photosynthetic suppression in the nitrogen-limited green alga Selenastrum minutum: Effects of NO_3^- and NH_4^+ addition on CO_2 efflux in the light. 1986.
- T.G. Williams (MSc). Inorganic carbon acquisition, photosynthesis, growth and DIC-limited competition in microalgae. 1986.
- I.R. Elrifi (PhD). Processes in nitrogen induced photosynthetic suppression in the green alga Selenastrum minutum. 1986.

Post-Doctoral Fellows

Dr. Shinichi Miyazawa	2003–2005
Dr. Nick Grant	2001–2003
Dr. Charles Muir	2001–2004
Dr. Yanping Cen	1997–2000
Dr. Tie Jin	1995–2000
Dr. Stefan Falk	1994–1995
Dr. Jean Rivoal	1994–1999
Dr. Robin Dunford	1993–1994
Dr. Eric Norman	1993–1994
Dr. Martine Dora	1993–1995
Dr. Derek Wright	1992–1994
Dr. Heather Huppe	1991–1997
Dr. Min Lin	1991–1992
Dr. Narendra Mohanty	1990–1992
Dr. Bill Wu	1990–1991
Dr. Kathy Schuller	1989–1990
Dr. Ron Smith	1988–1991
Dr. Rob Guy	1987–1988

PUBLICATIONS

Citation analysis (as of 27 June 2018, compiled by Google Scholar)

Total citations	6,829
h-index	47
i10-index	104

Books

Dennis, D.T., D.H. Turpin, D.D. Lefebvre and D.B. Layzell. 1997. *Plant Metabolism*. 2nd ed. Longman, U.K.

Dennis, D.T. and D.H. Turpin (eds.). 1990. *Plant Physiology, Biochemistry and Molecular Biology*. Longman, U.K. 529 pp. (Currently in 3rd printing).

Book Chapters

Turpin, D.H., H.G. Weger and H.C. Huppe. 1997. Interactions between photosynthesis, respiration and nitrogen assimilation. IN: *Plant Metabolism*. D.T. Dennis, D.H. Turpin, D.D. Lefebvre and D.B. Layzell, (eds.) 2nd ed. Longman, U.K.

Turpin, D.H. and H.G. Weger. 1990. Interactions between photosynthesis, respiration and N assimilation. IN: *Plant Physiology, Biochemistry and Molecular Biology*, D.T. Dennis and D.H. Turpin (eds.). Longman. pp. 422–433.

Turpin, D.H. 1988. The physiological basis of phytoplankton resource competition. IN: *Growth and reproduction strategies of freshwater microalgae*. C. Sandren (ed.), Cambridge University Press.

Scientific Correspondence

Turpin, D.H. 1993. Phytoplankton growth and CO₂. *Nature* 363:678–679.

Recent Selected Papers and Presentations on Higher Education

Turpin, D.H. (in prep). Changing public perceptions of universities: The challenge and opportunity in engaging our communities. Annual Meeting of Western Canadian Vice-Presidents Academic and Research. March 5, 2015.

Turpin, D.H., De Decker, L., and Boyd, B. 2014. Historical changes in the Canadian university presidency: An empirical analysis of changes in length of service and experience since 1840. *Canadian Journal of Public Administration*. 57(4):573-588.

- Turpin, D.H. 2014. Public Sector Bargaining In British Columbia: The University Context. Association of Atlantic Universities. November 26, 2014.
- Turpin, D.H. 2014. The Canadian University Presidency: Rapidly Changing Public Perceptions of Autonomy and Accountability. International Conference in Pursuit of Institutional Success and Sustainability. October 21, 2014
- Turpin, D.H. 2014. The President's Leadership Dilemma: Exploring the Tensions Between University Autonomy and Public Accountability. Keynote Address, American Association of State Colleges and Universities. July 13, 2014.
- Turpin, D.H. 2014. Public Perceptions of University Autonomy and Accountability. Canadian University Boards Association. March 2014.
- Turpin, D.H. 2013. The Canadian University Presidency: rapidly changing public perceptions of autonomy and accountability. Council of Ontario Universities Board Chairs. November 8, 2013.
- Turpin, D.H. 2013. The changing nature of the Canadian university presidency: tensions between university autonomy and accountability. Annual meeting of the Canadian Society for Studies in Higher Education. June 13, 2013.
- Turpin, D.H. 2013. Presidential Leadership in Internationalization. AUCC New Presidents Forum. January 2013.
- Turpin, D.H., Sager, E., with Tait, L., and De Decker, L. 2009. Universities and the Knowledge Economy. Business Council of British Columbia, Outlook 2020: Shaping B.C.'s Economic Future, August 2009. 24pp.

Papers in Refereed Journals

- Miyazawa, S., C.R. Warren, D.H. Turpin and N.J. Livingston. 2011. Determination of the site of CO₂ sensing in poplar: Is the areas-based N content and anatomy of new leaves determined by their immediate CO₂ environment or by the CO₂ environment of mature leaves? *Journal of Experimental Botany* 62(8):2787–2796.
- Miyazawa, S., N.J. Livingston and D.H. Turpin. 2006. Stomatal development in new leaves is related to the stomatal conductance of mature leaves in poplar (*Populus trichocarpa* × *P. deltoids*). *Journal of Experimental Botany* 57(2): 373–380.
- Warren, C.R., N.J. Livingston and D.H. Turpin. 2004. Water stress decreases the transfer conductance of Douglas-fir (*Pseudotsuga menziesii* (Mirb.) Franco) seedlings. *Tree Physiol.* 24(9):971–979.

- Warren, C.R., N.J. Livingston and D.H. Turpin. 2004. Photosynthetic responses and N allocation in Douglas-fir seedlings following a brief pulse of nutrients. *Tree Physiol.* 24(6):601–608.
- Warren, C.R., G.J. Ethier, N.J. Livingston, N.J. Grant, D.H. Turpin, D.L.H. Harrison, and T.A. Black. 2003. Transfer conductance in second growth Douglas-fir (*Pseudotsuga menziesii* (Mirb.) Franco) canopies. *Plant Cell Environ.* 26(8):1215–1227.
- Warren, C.R., N.J. Livingston and D.H. Turpin. 2003. Response of Douglas-fir seedlings to a brief pulse of 15-N labeled nutrients. *Tree Physiol.* 23(17):1193–1200.
- Warren, C.R., N.J. Livingston and D.H. Turpin. 2003. Responses of gas exchange to reversible changes in whole-plant transpiration rate in two conifer species. *Tree Physiol.* 23(12):793–803.
- Rivoal, J., D.H. Turpin and W.C. Plaxton. 2002. In vitro phosphorylation of phosphoenolpyruvate carboxylase from the green alga *Selenastrum minutum*. *Plant Cell Physiol.* 43(7):785–792.
- Rivoal, J., C.R. Smith, T.R. Moraes, D.H. Turpin and W.C. Plaxton. 2002. A method for activity staining after native polyacrylamide gel electrophoresis using a coupled enzyme assay and fluorescence detection: application to the analysis of several glycolytic enzymes. *Analytical Biochem.* 300:94–99.
- Cen, Y.-P., D.H. Turpin, D.B. Layzell. 2001. Whole Plant Gas Exchange and Reductive Biosynthesis in White Lupin. *Plant Physiol.* 126:1–11.
- Rivoal, J., S. Trzos, D.A. Gage, W.C. Plaxton and D.H. Turpin. 2001. Two unrelated phosphoenolpyruvate carboxylase polypeptides physically interact in the high molecular mass isoforms of this enzyme in the unicellular green alga *Selenastrum minutum*. *J. Biol. Chem.* 276:12588–12597.
- Pott, U. and D.H. Turpin. 1998. Assessment of atmospheric heavy metals by moss monitoring with *Isoetes stoloniferum* Brid. in the Fraser Valley, B.C., Canada. *Water, Air and Soil Pollution* 101:1–4.
- Jin, T., H.C. Huppe, and D.H. Turpin. 1998. *In vitro* reconstitution of electron transport from glucose-6-phosphate and NADPH to NO₂. *Plant Physiol.* 117:303–309.
- Waser, N.A., K. Yin, Z. Yu, K. Tada, P.J. Harrison, D.H. Turpin and S.E. Calvert. 1998. Nitrogen isotope fractionation during nitrate, ammonium and urea uptake by marine diatoms and coccolithophores under various conditions of N availability. *Marine Ecology Progress Series* 169:29–41.
- Waser, N.A.D., P.J. Harrison, B. Nielsen, S.E. Calvert and D.H. Turpin. 1998. Nitrogen isotope fractionation during the uptake and assimilation of nitrate, nitrite, ammonium and urea by a marine diatom. *Limnol. Oceanog.* 43:215–224.

- Rivoal, J., W.C. Plaxton and D.H. Turpin. 1998. Purification and characterization of high and low molecular mass isoforms of phosphoenolpyruvate carboxylase from Chlamydomonas reinhardtii: kinetic, structural and immunological evidence suggests that the green algal enzyme is distinct from the procaryotic and higher plant enzymes. *Biochemical Journal* 331:201–209.
- Heifetz, P.B., A. Lers, D.H. Turpin, C.B. Osmond, N.W. Gillham and J.E. Boynton. 1997. Photoinhibition in Chlamydomonas: the consequences of specific chloroplast gene mutations affecting D1 function, synthesis and turnover. *Plant Cell and Environ.* 20:1145–1157.
- Fielding, Anthony S., D.H. Turpin, R.D. Guy, S.E. Calvert, D.W. Crawford and P.J. Harrison. 1997. Influence of the carbon concentrating mechanism on carbon stable isotope discrimination by the marine diatom T. pseudonana. *Can. J. Bota.* 76:1098–1103.
- Wright, D.P., H.C. Huppe, and D.H. Turpin. 1997. In vivo and in vitro studies of glucose-6-phosphate dehydrogenase from barley root plastids in relation to reductant supply for NO₂- assimilation. *Plant Physiol.* 114:1413–1419.
- Xue, X., D.A. Gauthier, D.H. Turpin and H.G. Weger. 1996. Interactions between photosynthesis and respiration in the green alga Chlamydomonas reinhardtii. Characterization of light-enhanced dark respiration. *Plant Physiol.* 112:1005–1014.
- Gauthier, D.A. and D.H. Turpin. 1996. Interactions between inorganic phosphate (Pi) assimilation, photosynthesis and respiration in the Pi-limited green alga Selenastrum minutum. *Plant Cell and Environ.* (1997) 20:12–24.
- Rivoal, J., W.C. Plaxton, R. Dunford and D.H. Turpin. 1996. Purification and properties of four phosphoenolpyruvate carboxylase isoforms from the green alga S. minutum: Evidence that association of the 102 kDa catalytic subunit with unrelated polypeptides modifies the kinetic and physical properties of the enzyme. *Arch. Biochem. Biophys.* 332:47–57.
- Huppe, H.C. and D.H. Turpin. 1996. Production of novel glucose-6-phosphate dehydrogenase isoforms by Chlamydomonas reinhardtii during growth on nitrate. *Plant Physiol.* 11:1431–1433.
- Pott, U. and D.H. Turpin. 1996. Changes in atmospheric heavy metal deposition in the Fraser Valley, B.C., Canada from 1960 - 1993 measured by moss monitoring with Isoetecium stoloniferum Brid. *Can. J. Bota.* 74:1345–1353.
- Sinclair, A.R.E., D.S. Hik, O.J. Schmitz, G.G.E. Scudder, D.H. Turpin and N.C. Larter. 1995. Biodiversity and the need for habitat renewal. *Ecological Applications* 5:579–587.

- Norman, E.G., A.B. Walton and D.H. Turpin. 1994. Immediate activation of respiration in Petroselinum crispum in response to the Phytophthora megasperma elicitor. *Plant Physiol.* 106:1541–1546.
- de Lima, M.L., I.J. Oresnick, S.M. Fernando, S. Hunt, R. Smith, D.H. Turpin and D.B. Layzell. 1994. The relationship between nodule adenylates and the regulation of nitrogenase activity by O₂ in Soybean. *Physiol. Planta.* 91:687–695.
- Huppe, H.C. and D.H. Turpin. 1994. Integration of carbon and nitrogen metabolism in plant and algal cells. *Annual Rev. Plant Physiol. Mol. Biol.* 45:577–608.
- Huppe, H.C., T.J. Farr and D.H. Turpin. 1994. Coordination of chloroplastic metabolism in N-limited Chlamydomonas reinhardtii by redox modulation II: Redox modulation activates the oxidative pentose phosphate pathway during photosynthetic nitrate assimilation. *Plant Physiol.* 105:1043–1048.
- Farr, T.J., H.C. Huppe and D.H. Turpin. 1994. Coordination of chloroplastic metabolism in N-limited Chlamydomonas reinhardtii by redox modulation I: The activation of phosphoribulokinase and glucose-6-phosphate dehydrogenase is relative to the photosynthetic supply of electrons. *Plant Physiol.* 105:1037–1042.
- Gauthier, D.A. and D.H. Turpin. 1994. Pi-enhancement of dark respiration in the Pi-limited green alga Selenastrum minutum: Interactions between H⁺-ATPase and dark respiratory carbon flow. *Plant Physiol.* 104:629–637.
- Lin, M. and D.H. Turpin. 1993. Purification and characterization of two forms of phosphoglycerate kinase from the green alga Selenastrum minutum. *J. Phycol.* 29:777–786.
- Raven, J.A., A.M. Johnston and D.H. Turpin. 1993. Influence of changes in CO₂ concentration and temperature on marine phytoplankton 13C/12C ratios: an analysis of possible mechanisms. *Global and Planetary Change* 8:1–12.
- Huppe, H.C., G.C. Vanlerberghe and D.H. Turpin. 1992. Evidence for activation of the oxidative pentose phosphate pathway during photosynthetic assimilation of NO₃⁻ but not NH₄⁺ by a green alga. *Plant Physiol.* 100:2096–2099.
- Gottlob-McHugh, S.G., R.S. Sangwan, S.D. Blakeley, G.C. Vanlerberghe, K. Ko, D.H. Turpin, W.C. Plaxton, B.L. Miki and D.T. Dennis. 1992. Normal growth of transgenic tobacco plants in the absence of cytosolic pyruvate kinase. *Plant Physiol.* 100:820–825.
- Wu, B. and D.H. Turpin. 1992. Purification and characterization of pyruvate kinase from the green alga Selenastrum minutum. *J. Phycol.* 28:472–481.

- Sangwan, R.S., D.A. Gauthier, D.H. Turpin, M.K. Pomeroy and W.C. Plaxton. 1992. Pyruvate kinase isozymes from Brassica napus zygotic and microspore-derived embryos: developmental profiles and subunit composition. *Planta* 187:198–202.
- Vanlerberghe, G.C., H. Huppe, K. Vlossak and D.H. Turpin. 1992. Activation of respiration to support dark NO_3^- and NH_4^+ assimilation in the green alga Selenastrum minutum. *Plant Physiol.* 99:495–500.
- Smith, R.G., D.A. Gauthier, D.T. Dennis and D.H. Turpin. 1992. Malate and pyruvate-dependent fatty acid synthesis in leucoplasts from developing castor bean endosperm. *Plant Physiol.* 98:1233–1238.
- Lin, M. and D.H. Turpin. 1992. Phosphoribulokinase from the green alga Selenastrum minutum. I. Purification and molecular and immunological characterization. *Plant Physiol.* 98:82–88.
- Govindjee, H.G., Weger, D.H. Turpin, J.J.S. van Rensen, O.J. de Vos and J.F.H. Snel. 1991. Carbon dioxide/bicarbonate release upon formate addition is related to the bicarbonate effect in thylakoid membranes. *Naturwissen.* 78:168–170.
- Mohanty, N., D. Bruce and D.H. Turpin. 1991. Dark ammonium assimilation reduces the plastoquinone pool of photosystem II in the green alga Selenastrum minutum. *Plant Physiol.* 96:513–517.
- Theodorou, M.E., I.R. Elrifi, D.H. Turpin and W.C. Plaxton. 1991. Effects of phosphorus limitation on respiratory metabolism in the green alga Selenastrum minutum. *Plant Physiol.* 95:1089–1095.
- Vanlerberghe, G.C., K.W. Joy and D.H. Turpin. 1991. Anaerobic metabolism in the N-limited green alga Selenastrum minutum. III. Alanine is the product of anaerobic ammonium assimilation. *Plant Physiol.* 95:655–658.
- Amory, A.M., G.C. Vanlerberghe and D.H. Turpin. 1991. Demonstration of both a photosynthetic and non-photosynthetic CO_2 requirement for NH_4^+ assimilation in the green alga Selenastrum minutum. *Plant Physiol.* Vol. 95:192–196.
- Turpin, D.H., G.C. Vanlerberghe, A.M. Amory and R.D. Guy. 1991. The inorganic carbon requirements of nitrogen assimilation. *Can. J. Bota.* 69:1139–1145.
- Turpin, D.H. 1991. Effects of inorganic nitrogen availability on algal photosynthesis and carbon metabolism. *J. Phycol.* 21:14–20.
- Turpin, D.H. 1991. N assimilation and photosynthetic and respiratory metabolism in the green alga Selenastrum minutum. *Boletin de la Academia Nacional de Ciencias* 59:101–120.

- Schuller, K.A., W.C. Plaxton and D.H. Turpin. 1990. Metabolite regulation of partially purified soybean nodule phosphoenolpyruvate carboxylase. *Plant Physiol.* 94:1429–1435.
- Vanlerberghe, G.C., R. Feil and D.H. Turpin. 1990. Anaerobic metabolism in the green alga *Selenastrum minutum*. I. Regulation of carbon metabolism and succinate as a fermentation product. *Plant Physiol.* 94:1116–1123.
- Vanlerberghe, G.C. and D.H. Turpin. 1990. Anaerobic metabolism in the green alga *Selenastrum minutum*. II. Assimilation of ammonium by anaerobic cells. *Plant Physiol.* 94:1124–1130.
- Weger, H.G., A.R. Chadderton, M. Lin, R.D. Guy and D.H. Turpin. 1990. Cytochrome and alternative pathway respiration during transient ammonium assimilation by N-limited *Chlamydomonas reinhardtii*. *Plant Physiol.* 94:1131–1136.
- Vanlerberghe, G., K.A. Schuller, R.G. Smith, R. Feil, W.C. Plaxton and D.H. Turpin. 1990. Relationship between NH_4^+ assimilation rate and in vivo phosphoenolpyruvate carboxylase activity: Regulation of anaplerotic carbon flow in the green alga *Selenastrum minutum*. *Plant Physiol.* 94:284–290.
- Botha, F.C. and D.H. Turpin. 1990. The fructose-1, 6-biphosphatase in the green alga *Selenastrum minutum*. I. Evidence for the presence of isozymes. *Plant Physiol.* 93:1460–1465.
- Turpin, D.H. and D. Bruce. 1990. Regulation of photosynthetic light harvesting by nitrogen assimilation in the green alga *Selenastrum minutum*. *FEBS* 263:99–103.
- Schuller, K.A., W.C. Plaxton and D.H. Turpin. 1990. Regulation of C_3 phosphoenolpyruvate carboxylase from the green alga *Selenastrum minutum*: Properties associated with replenishment of TCA cycle intermediates during amino acid biosynthesis. *Plant Physiol.* 93:1303–1311.
- Botha, F.C. and D.H. Turpin. 1990. Molecular, kinetic and immunological properties of the 6 phosphofructokinase from the green alga *Selenastrum minutum*. *Plant Physiol.* 93:871–879.
- Weger, H.G., R.D. Guy and D.H. Turpin. 1990. Cytochrome and alternative pathway respiration in green algae: Measurements using inhibitors and $^{18}\text{O}_2$ discrimination. *Plant Physiol.* 93:356–360.
- Turpin, D.H., F.C. Botha, R.G. Smith, R. Feil, A. Horsey, G. Vanlerberghe. 1990. Regulation of carbon partitioning to respiration during dark ammonium assimilation in the green alga *Selenastrum minutum*. *Plant Physiol.* 93:166–175.
- Vanlerberghe, G.C. and D.H. Turpin. 1989. Anaerobic carbon metabolism by the TCA cycle: Evidence for partial oxidative and reductive pathways during dark ammonium assimilation. *Plant Physiol.* 91:1551–1557.

- Smith, R.G., G.C. Vanlerberghe, M. Stitt and D.H. Turpin. 1989. Short-term metabolite changes during transient ammonium assimilation by the N-limited alga Selenastrum minutum. *Plant Physiol.* 91:749–755.
- Holmes, J.J., H.G. Weger and D.H. Turpin. 1989. Chlorophyll a fluorescence predicts total photosynthetic electron flow to CO₂ or NO₃⁻/NO₂⁻ under transient conditions. *Plant Physiol.* 91:331–337.
- Weger, H.G., R. Herzig, P.G. Falkowski and D.H. Turpin. 1989. Respiratory losses in the light in a marine diatom: measurements by short-term mass-spectrometry. *Limnol. Oceanogr.* 34:1153–1161
- Mayo, W., I.R. Elrifi and D.H. Turpin. 1989. Photosynthetic adaptation to low inorganic carbon by the cyanobacterium S. leopoliensis: The role of DIC transport and RuBP regeneration. *Plant Physiol.* 90:720–727.
- Guy, R.D., G. Vanlerberghe and D.H. Turpin. 1989. The significance of PEPcase during ammonium assimilation: Carbon isotope discrimination in photosynthesis and respiration by the N-limited green alga Selenastrum minutum. *Plant Physiol.* 89:1150–1157.
- Min, L., D.H. Turpin and W. Plaxton. 1989. Characterization of 2 isozymes of pyruvate kinase from a green alga. I. Purification and physical properties. *Arch. Biochem. Biophys.* 269:219–227.
- Min, L., D.H. Turpin and W. Plaxton. 1989. Characterization of 2 isozymes of pyruvate kinase from a green alga. II. Kinetics and metabolic regulation. *Arch. Biochem. Biophys.* 269:228–238.
- Weger, H.G. and D.H. Turpin. 1989. Mitochondrial respiration can support NO₃⁻ and NO₂⁻ reduction during photosynthesis: Interactions between photosynthesis, respiration and N assimilation in the N-limited green alga Selenastrum minutum. *Plant Physiol.* 89:409–415.
- Turpin, D.H. and H.G. Weger. 1988. Steady-state fluorescence transients during ammonium assimilation by the N-limited green alga Selenastrum minutum. *Plant Physiol.* 88:97–101.
- Weger, H.G., D.G. Birch and D.H. Turpin. 1988. Ammonium assimilation requires mitochondrial respiration in the light: A study with the green alga Selenastrum minutum. *Plant Physiol.* 86:688–692.
- Turpin, D.H., I.R. Elrifi, D.G. Birch and H.G. Weger and J.J. Holmes. 1988. Interactions between photosynthesis, respiration and nitrogen assimilation in microalgae. *Can. J. Bot.* 66:2083–2097.

- Thomas, T.E., D.H. Turpin and P.J. Harrison. 1987. Desiccation enhanced nitrogen uptake rates in intertidal seaweeds. *Mar. Biol.* 94:293–298.
- Thomas, T.E., P.J. Harrison and D.H. Turpin. 1987. Adaptations of Gracilaria pacifica (Rhodophyta) to nitrogen procurement at different intertidal locations. *Mar. Biol.* 95:569–580.
- Williams, T.G. and D.H. Turpin. 1987. The role of external carbonic anhydrous in inorganic carbon acquisition by Chlamydomonas reinhardtii at alkaline pH. *Plant Physiol.* 83:92–96.
- Elrifi, I.R. and D.H. Turpin. 1987. The path of carbon flow during NO_3^- induced photosynthetic suppression in N-limited Selenastrum minutum. *Plant Physiol.* 83:97–104.
- Birch, D.G., I.R. Elrifi and D.H. Turpin. 1986. Nitrate and ammonium induced photosynthetic suppression in N-limited Selenastrum minutum. II. Effects of NO_3^- and NH_4^+ addition on CO_2 efflux in the light. *Plant Physiol.* 82:708–712.
- Elrifi, I.R., D.B. Layzell, B.J. King, G.E. Weagle and D.H. Turpin. 1986. Inexpensive, computer-automated HPLC for ion exchange separation and quantification of amino acids in physiological fluids. *J. Liq. Chrom.* 9:2199–2221.
- Elrifi, I.R. and D.H. Turpin. 1986. Nitrate and ammonium induced photosynthetic suppression in N-limited Selenastrum minutum. *Plant Physiol.* 81:273–279.
- Harrison, P.J., D.H. Turpin, P.K. Bienfang and C.O. Davis. 1986. Sinking as a factor affecting phytoplankton species succession: the use of selective loss semi-continuous cultures. *J. Exp. Mar. Biol. Ecol.* 99:19–30.
- Mayo, W.P., T.G. Williams, D.G. Birch and D.H. Turpin. 1986. Photosynthetic adaptation by Synechococcus leopoliensis in response to exogenous dissolved inorganic carbon. *Plant Physiology.* 80:1038–1040.
- Turpin, D.H. 1986. Growth rate dependent optimum ratios in Selenastrum minutum (Chlorophyta): Implications for competition, coexistence and stability in phytoplankton communities. *J. Phycol.* 22:94–102.
- Elrifi, I.R. and D.H. Turpin. 1985. Steady-state luxury consumption and the concept of optimum nutrient ratios: a study with phosphate and nitrate limited Selenastrum minutum (Chlorophyceae). *J. Phycol.* 21:592–602.
- Turpin, D.H., A.G. Miller, J.S. Parslow, I.R. Elrifi and D.T. Canvin. 1985. Predicting the kinetics of DIC-limited growth from the short-term kinetics of photosynthesis in Synechococcus leopoliensis (Cyanophyta). *J. Phycol.* 21:409–418.

- Turpin, D.H., D.B. Layzell and I. Elrifi. 1985. Modelling C economy of Anabaena flos-aquae: estimates of establishment, maintenance and active costs associated with growth on NH₃, NO₃ and N₂. *Plant Physiol.* 78:746–752.
- Layzell, D.B., D.H. Turpin and I.R. Elrifi. 1985. Effect of N source on the steady-state growth and N assimilation of P-limited Anabaena flos-aquae. *Plant Physiol.* 78:739–745.
- Turpin, D.H. and D.B. Layzell. 1985. A culture system enabling in situ determination of net and gross photosynthesis, O₂ evolution, N assimilation, and C₂H₂ reduction in cyanobacteria. *Can. J. Bot.* 63:1025–1030.
- Elrifi, I.R. and D.H. Turpin. 1985. Transient photosynthetic response of nitrogen limited microalgae to nitrogen addition. *Mar. Ecol. Prog. Series.* 20:253–258.
- Miller, A.G., D.H. Turpin, and D.T. Canvin. 1984. Growth and photosynthesis of the cyanobacterium Synechococcus leopoliensis in HCO₃-limited chemostats. *Plant Physiol.* 75:1064–1070.
- Miller, A.G., D.H. Turpin and D.T. Canvin. 1984. A sodium requirement for growth, photosynthesis and pH regulation in the cyanobacterium Synechococcus leopoliensis. *J. Bacteriology* 159:100–106.
- Turpin, D.H., A.G. Miller and D.T. Canvin. 1984. Carboxysome content of Synechococcus leopoliensis (cyanophyta) in response to inorganic carbon. *J. Phycol.* 20:249–253.
- Turpin, D.H., Edie, S.A. and Canvin, D.T. 1984. In vivo nitrogenase regulation by ammonium and methylamine and the effect of MSX on ammonium transport in Anabaena flos-aquae. *Plant Physiol.* 74:701–704.
- Thomas, T.E., Turpin, D.H. and Harrison, P.J. 1984. Glutamyl transferase (EC 2.3.2.2.) activity in marine phytoplankton. *Mar. Ecol. Prog. Series.* 14:219–222.
- Turpin, D.H. 1993. Ammonium induced photosynthetic suppression in ammonium limited Dunaliella tertiolecta (Chlorophyta). *J. Phycol.* 19:70–76.
- Quarmby, L.M., Turpin, D.H., and P.J. Harrison. 1982. Physiological responses of two marine diatoms to pulsed additions of ammonium. *J. Exp. Mar. Biol. Ecol.* 63:173–181.
- Turpin, D.H., J.S. Parslow and P.J. Harrison. 1981. On limiting nutrient patchiness and phytoplankton growth: a conceptual approach. *J. Plank. Res.* 3:421–431.
- Turpin, D.H. and P.J. Harrison. 1980. Cell size manipulation in natural marine, planktonic, diatom communities. *Can. J. Fish. Aquat. Sci.* 37:1193–1195.
- Thomas, T.E. and D.H. Turpin. 1980. Desiccation enhanced nutrient uptake potentials in Fucus distichus. *Bota. Mar.* 23:479–481.

- Turpin, D.H. and P.J. Harrison. 1979. Limiting nutrient patchiness and its role in phytoplankton ecology. *J. Exp. Mar. Biol. Ecol.* 39:151–166.
- Turpin, D.H. and P.J. Harrison. 1978. Fluctuations in free amino acid pools of Gymnodinium simplex (Dinophyceae) in response to ammonia perturbation: Evidence for glutamine synthetase pathway. *J. Phycol.* 14:461–464.
- Turpin, D.H., P.E.R. Dobell and F.J.R. Taylor. 1978. Sexuality and cyst formation in pacific strains of the marine dinoflagellate Gonyaulax tamarensis. *J. Phycol.* 14:235–238.

Published Conference Proceedings

- Jin, T., H. C. Huppe and D.H. Turpin. 1998. Electron flow from NADPH to ferredoxin in support of NO₂⁻ reduction. Proceedings of the XIth International Photosynthesis Congress, Budapest, Hungary. Vol. V:3625–3628.
- Rivoal, J., S. Trzos, D.A. Gage, W.C. Plaxton and D.H. Turpin. 1998. Characterization of high and low molecular mass isoforms of phosphoenolpyruvate carboxylase from the green alga Selenastrum minutum. Proceedings of the XIth International Photosynthesis Congress, Budapest, Hungary. Vol. V:3403–3406.
- Huppe, H.C. and D.H. Turpin. 1996. A role for glucose-6-phosphate dehydrogenase in short- and long-term regulation of photosynthetic and respiratory carbon and nitrogen metabolism in nitrogen-limited Chlamydomonas reinhardtii. *Biochem. Trans.* 24:767–770.
- Gauthier, D.A. and D.H. Turpin. 1995. Interactions between phosphate uptake, respiration and photosynthesis. Proceedings of the Xth International Photosynthesis Congress, Montpellier, France. Vol. 5:363–366
- Huppe, H.C., J. Moustgaard and D.H. Turpin. 1995. The role of short and long term regulation of glucose-6-phosphate dehydrogenase in the assimilation of nitrogen. Proceedings of the Xth International Photosynthesis Congress, Montpellier, France. Vol. 5:415–418.
- Turpin, D.H., R. Dunford, J. Rivoal and H.C. Huppe. 1995. Interaction of carbon and nitrogen metabolism in photosynthetic cells: clues from unicellular algae. Proceedings of the Xth International Photosynthesis Congress, Montpellier, France. Vol. 5:353–358
- Turpin, D.H. and R. Harmsen. 1995. Prioritizing for Investments in Biodiversity. John Deutsch Institute for the Study of Economic Policy. Queen's University, Kingston, Ontario, Canada. (Reprinted from below)
- Turpin, D.H. and Harmsen, R. 1995. Prioritizing for investments in biodiversity. Dialogue on Biodiversity and Natural Resources Management in Mainland Southeast Asian Economies. Kunming Institute of Botany, Kunming, China. pp.19–30.

- Huppe, H.C., T.J. Farr and D.H. Turpin. 1993. A different role for redox regulation of enzymes: response of PRK and G6PDH in N-limited Chlamydomonas to nitrogen resupply. Proceedings of the 1992 Photosynthesis Congress. Research in Photosynthesis Vol. IV, (N. Murata, ed.). pp. 51–54.
- Plaxton, W.C., R.S. Sangwan, N. Singh, D.A. Gauthier and D.H. Turpin. 1992. Phosphoenolpyruvate metabolism of developing oil seeds. Seed Oils for the Future (American Oil Chemists Society Press). pp. 35–43.
- Turpin, D.H. 1992. Metabolic interactions during photosynthetic and respiratory nitrogen assimilation in a green alga. IN: Society for Experimental Biology, Symposium Series. A. Tobin (ed.). pp. 49–78.
- Weger, H.G., G.C. Vanlerberghe, R.D. Guy and D.H. Turpin. 1992. Respiratory carbon flow to nitrogen assimilation. IN: Third International Plant Respiration Meeting, Utrecht. H. Lambers (ed.).
- Guy, R.D., J.A. Berry, M.L. Fogel, D.H. Turpin and H.G. Weger. 1992. Fractionation of the stable isotopes of oxygen during respiration by plants—the basis of a new technique to estimate partitioning to the alternative path. IN: Third International Plant Respiration Meeting, Utrecht. H. Lambers (ed.).
- Turpin, D.H., H.G. Weger, R.G. Smith, W.C. Plaxton and M. Lin. 1990. Interactions between respiration and N assimilation during photosynthesis. IN: Inorganic Nitrogen Metabolism. W. Ulrich (ed.). Springer-Verlag. pp. 124–130.
- Turpin, D.H., A.G. Miller and D.T. Canvin. 1985. The use of chemostats in the study of inorganic carbon metabolism by microalgae. IN: Bicarbonate Utilization by Photosynthetic Organisms. W. Lucas and J. Berry (eds.) Waverly Press. pp. 437–448.
- Turpin, D.H., A.G. Miller, J.S. Parslow, I.R. Elrifi and D.T. Canvin. 1985. The relationship between HCO_3^- limited photosynthesis and growth in the cyanobacterium Synechococcus leopoliensis. IN: Bicarbonate Utilization by Photosynthetic Organisms. W. Lucas and J. Berry (eds.). Waverly Press. pp. 449–458.
- Edie, S.A., D.H. Turpin and D.T. Canvin. 1984. In vivo nitrogenase regulation by ammonium in *Anabaena flos-aquae*. IN: Proc. International Symposium on Nitrogen Fixation.
- Miller, A.G., D.T. Canvin and D.H. Turpin. 1984. Carbon assimilation in *Anacystis nidulans* grown in carbon-regulated chemostats. IN: Proc. 6th International Congress of Photosynthesis, Brussels. Vol. III. pp. 449–456.
- Miller, A.G., D.T. Canvin and D.H. Turpin. 1984. Carbon assimilation in *Anacystis nidulans* grown in carbon-regulated chemostats. IN: International Symposium - Kinetics of Photosynthetic Carbon Metabolism in C_3 Plants, Tallinn, Estonia.

Harrison, P.J. and D.H. Turpin. 1982. The manipulation of physical, chemical and biological factors to select species from natural phytoplankton communities. IN: Marine Mesocosms: Biological and Chemical Research in Experimental Ecosystems (ed. G.D. Grice). Springer-Verlag (Berlin).

PRESENTATIONS

Roy, R., M. Hills, N. Livingston, D. Turpin, W. Hintz, N. Grant, M. Whitarcar. Methane oxidation and methanotrophic bacteria in a landfill soil. 53rd Annual Meeting of the Canadian Society for Microbiologists. May 25–28, 2003. Laval, Quebec.

Roy, R., M. Hills, N. Livingston, D. Turpin, W. Hintz, N. Grant, M. Whitarcar, D. Layzell. 2003. Methane oxidation and methanotrophic bacteria in landfill soils emitting methane: a possible solution to methane emission? 26th Arctic and Marine Oilspill Program (AMOP) Technical Seminar. June 10–12, 2003. Victoria, B.C.

In vitro reconstitution of electron transport from glucose-6-phosphate and NADPH to NO_2^- . (Co-authored with Jin, T. and H.C. Huppe). 5th International Symposium on Inorganic Nitrogen Assimilation, Luso, Portugal. July 1998. **INVITED**

A system for studies of CO_2 effects on N assimilation in legumes. (Co-authored with Cen, Y., Duffy, K. and Layzell, D.) CSPP, Montreal, Canada. July 1998.

Kinetic, structural and immunological characterization of purified high and low molecular mass isoforms of PEP carboxylase from *Chlamydomonas reinhardtii*. (Co-authored with Rivoal, J., and W.C. Plaxton) CSPP, Ottawa, Canada. December 1997.

Further characterization of a high molecular mass isoform of phosphoenol-pyruvate carboxylase from the green alga *Selenastrum minutum* (Co-authored with Rivoal, J., S. Trzos, D. A. Gage, and W.C. Plaxton). ASPP/CSPP Annual Meeting, Vancouver, Canada. August 1997.

In vitro reconstitution of the electron transport from NADPH to NO_2^- demonstrates that the OPPP can supply energy to NO_2^- assimilation in the dark. (Co-authored with Jin, T. and H.C. Huppe) ASPP/CSPP Annual Meeting, Vancouver, Canada. August 1997

Effects of potassium limitation on solute accumulation and carbon metabolism in *Hordeum vulgare* L: comparison with water stress. (Co-authored with Dorais, M., and A.D.M. Glass). ASPP/CSPP Annual Meeting, Vancouver, Canada. August 1997.

The influence of the carbon concentrating mechanism on carbon stable isotope discrimination by marine phytoplankton. (Co-authored with Fielding, A.S., D.H. Turpin, P.J. Harrison, S.E. Calvert, and R.D. Guy). ASPP/CSPP Annual Meeting, Vancouver, Canada. August 1997.

Characterization of glucose-6-phosphate isoforms from NO_3^- grown Chlamydomonas reinhardtii. (Co-authored with Moustgaard, J.R., and H.C. Huppe.) ASPP/CSPP Annual Meeting, Vancouver, Canada. August 1997.

Metabolic energy allocation in relation to the rate of NO_3^- assimilation: a role for reductive regulation in coordinating carbon metabolism in the algal chloroplast. (Co-authored with Huppe, H.C. and L.K. McPhee). ASPP/CSPP Annual Meeting, Vancouver, Canada. August 1997.

Inducement of external (DA)-NAD (P) H oxidation in beet mitochondria. (Co-authored with Soole, K.L., and J.T. Wiskich) ASPP/CSPP Annual Meeting, Vancouver, Canada. August 1997.

Interactions between photosynthesis, respiration and nitrogen assimilation. University of Florida, Gainesville, Florida, January, 1997. **INVITED**

Carbon and nitrogen interactions in photosynthetic cells, Australian National University, Canberra, Australia, August, 1996. **INVITED**

Prioritizing for investments in biodiversity. University of Adelaide, August, 1996. **INVITED**

Interactions between carbon and nitrogen metabolism in photosynthetic cells. University of Adelaide, Australia, August, 1996. **INVITED**

A role for glucose 6-phosphate dehydrogenase in short and long term regulation of photosynthetic and respiratory carbon and nitrogen metabolism in N-limited Chlamydomonas reinhardtii. (Co-authored with H. Huppe). 658th Biochemical Society Meeting, Liverpool, United Kingdom, April, 1996. **INVITED**

Interactions between photosynthesis and mitochondrial respiration in the green alga Chlamydomonas reinhardtii. (Co-authored with X. Xue, D.A. Gauthier and H.G. Weger). ASPP, San Antonio, Texas.

Interaction of carbon and nitrogen metabolism in photosynthetic cells: clues from unicellular algae. (Co-authored with R. Dunford, J. Rivoal and H.C. Huppe). Xth International Photosynthesis Congress, Montpellier, France, August 1995. **INVITED**

Interactions between phosphate uptake, respiration and photosynthesis. (Co-authored with D.A. Gauthier). Xth International Photosynthesis Congress, Montpellier, France, August 1995.

The role of short and long term regulation of glucose-6-phosphate dehydrogenase in the assimilation of nitrogen. (Co-authored with H.C. Huppe and J. Moustgaard). Xth International Photosynthesis Congress, Montpellier, France, August 1995.

- Purification and characterizations of four PEP carboxylase isoforms from the green algae Selenastrum minutum (Co-authored with J. Rivoal, R. Dunford, and W.C. Plaxton). Cellular Environment and Regulation of PEP Carboxylase, Orsay, France, August 1995. **INVITED**
- Effect of nitrogen limitation and resupply on the glucose 6-phosphate dehydrogenase from Chlamydomonas reinhardtii. (Co-authored with H.C. Huppe). ASPP/CSPP 1994 Annual Meeting.
- Kinetic properties of PEP carboxylase are altered on ammonium resupply to N-limited cells of the green alga Selenastrum minutum. (Co-authored with R. Dunford and Plaxton, W.C.). ASPP/CSPP 1994 Annual Meeting.
- Effect of nitrogen deprivation and resupply on the glucose 6-phosphate dehydrogenase from barley root plastids. (Co-authored with D.P. Wright). ASPP/CSPP 1994 Annual Meeting.
- Biophysical and biochemical effects of potassium in barley plants. (Co-authored with M. Dorais and A.D.M. Glass). ASPP/CSPP 1994 Annual Meeting.
- Immediate activation of dark respiration in parsley in response to the PMG elicitor. (Co-authored with E.G. Norman and A.B. Walton). ASPP/CSPP 1994 Annual Meeting.
- Interactions between photosynthesis, respiration and nitrogen assimilation. 1994 Plant Biochemistry Conference, Michigan State University. **INVITED**
- Metabolic physiology of C and N metabolism. ASPP/CSPP 1993 Annual Meeting Symposium talk. **INVITED**
- Global estimate of net annual carbon flow to phenylpropanoid metabolism. (Co-authored with A. Walton and E.G. Norman). ASPP/CSPP 1993 Annual Meeting.
- Regulation of dark state transitions in the green alga Selenastrum minutum. (Co-Authored with J.J. Holmes). ASPP/CSPP 1993 Annual Meeting.
- The effects of phosphate-enrichment on the metabolism of the phosphate-limited green alga Selenastrum minutum. (Co-authored with D.A. Gauthier). ASPP/CSPP 1993 Annual Meeting.
- Evidence for redox regulation of the oxidative pentose phosphate pathway during photosynthetic nitrate assimilation in an N-limited green alga. (Co-authored with H.C. Huppe and T.J. Farr). ASPP/CSPP 1993 Annual Meeting.
- The relationship between photosynthetic rate and the redox regulation of two key enzymes of carbon reduction and oxidation in a green alga. (Co-authored with T.J. Farr and H.C. Huppe). ASPP/CSPP 1993 Annual Meeting.

Role of adenylates in the O₂ regulation of N₂ fixation in soybean nodules. (Co-authored with I.J. Oresnik, M. Fernando, S. Hunt, R. Smith and D.B. Layzell). ASPP/CSPP 1993 Annual Meeting.

Dissimilatory nitrate reduction can support anaerobic respiration in the N-limited green alga Selenastrum minutum. (Co-authored with T.D. Sitland). ASPP/CSPP 1993 Annual Meeting.

Interactions between photosynthesis, respiration and nitrogen assimilation. Department of Plant Science, UBC, 1993. **INVITED**

A different role for redox regulation of enzymes: response of PRK and G6PDH in N-limited Chlamydomonas to nitrogen resupply. (Co-authored with H.C. Huppe and T.J. Farr). Photosynthesis Congress, Nagoya, Japan, 1992.

Anaerobic carbon metabolism in the green alga S. minutum. (Co-authored with G.C. Vanlerberghe). Canadian Society of Plant Physiologists, St. John's, Newfoundland. 1992. **INVITED**

CO₂ dependent growth and nitrogen assimilation in phytoplankton. Photosynthetic Responses to the Environment, Kona, Hawaii, 1992. **INVITED**

Interactions between photosynthesis, respiration and nitrogen assimilation. Department of Microbiology, UBC, 1992. **INVITED**

Interactions between photosynthesis, respiration and nitrogen assimilation. Department of Soil Science, UBC, 1991. **INVITED**

Interactions between photosynthesis, respiration and nitrogen assimilation. University of Victoria, Nov. 1991. **INVITED**

Interactions between photosynthesis, respiration and nitrogen assimilation. Caribou College, Nov. 1991. **INVITED**

Interactions between photosynthesis, respiration and nitrogen assimilation. McGill University, Oct. 1991. **INVITED**

Interactions between photosynthesis, respiration and nitrogen assimilation. Michigan State University, Oct. 1991. **INVITED**

The role of photosynthetic and respiratory metabolism in protein synthesis by plants. School of Family and Nutritional Studies, UBC. **INVITED**

Interactions between photosynthesis, respiration and nitrogen assimilation. International Phycological Congress. Duke University, August 1991. **INVITED**

- Respiratory carbon flow to nitrogen assimilation. Third International Plant Respiration Meetings. Utrecht, Netherlands, July 1991. **INVITED**
- Metabolic interactions during photosynthetic and respiratory nitrogen assimilation in a green alga. Society for Experimental Biology, Birmingham, April 1991. **INVITED**
- Chlorophyll *a* fluorescence predicts total photosynthetic electron flow. (Co-authored with J.J. Holmes and H.G. Weger). Canadian Society of Plant Physiologists. Waterloo, Dec. 1990.
- Fatty-acid synthesis in microspore-derived embryos and isolated leucoplasts of Brassica napus cv. Topas. (Co-authored with D.A. Gauthier, R.G. Smith and M.K. Pomeroy). Canadian Society of Plant Physiologists. Waterloo, Dec. 1990.
- Sources of carbon for fatty-acid synthesis in leucoplasts isolated from developing castor bean (Ricinus communis) endosperm. (Co-authored with R.G. Smith and D.A. Gauthier). Canadian Society of Plant Physiologists. Waterloo, Dec. 1990.
- Effects of nitrogen assimilation rate on carbon metabolism in a green alga. (Co-authored with K. Vlossak). Canadian Society of Plant Physiologists. Waterloo, Dec. 1990.
- Anaerobic NH₄⁺ assimilation in a green alga. (Co-authored with G.C. Vanlerberghe, K.W. Joy and R. Feil). Canadian Society of Plant Physiologists. Waterloo, Dec. 1990.
- Physical, kinetic and regulatory properties of partially purified pyruvate kinase from Chlamydomonas reinhardtii. (Co-authored with H.B. Wu). Canadian Society of Plant Physiologists. Waterloo, Dec. 1990.
- Molecular and immunological characterization of phosphoribulokinase from the green alga Selenastrum minutum. (Co-authored with M. Lin). Canadian Society of Plant Physiologists. Waterloo, Dec. 1990.
- Metabolic interactions between photosynthesis, respiration and N assimilation. Queen's University, Department of Microbiology, November 1990. **INVITED**
- Metabolic interactions between photosynthesis, respiration and N assimilation. McGill University, October 1990. **INVITED**
- Inorganic carbon requirements for N assimilation. Second International Symposium on Inorganic Carbon Utilization in Aquatic Photosynthetic Organisms. Kingston, Canada, August 1990. **INVITED**
- Photosynthesis and nitrogen assimilation. Photosynthesis Gordon Conference, New Hampshire, July 1990. **INVITED**

Oxygen induced changes in metabolic pool sizes in soybean nodules. (Co-authored with S.M. Ferrando, S. Hunt, R. Smith, C. Atkins and D.B. Layzell). International N₂ fixation meeting, Tennessee, May 1990.

Metabolic interactions between photosynthesis, respiration and N assimilation. Concordia University, March 1990. **INVITED**

Metabolic interactions between photosynthesis, respiration and N assimilation. University of Western Ontario, March 1990. **INVITED**

Metabolic interactions between photosynthesis, respiration and N assimilation. Brock University, March 1990. **INVITED**

Mitochondrial respiration in green algae. (Co-authored with H.G. Weger and R.D. Guy). Northwest Scientific Association. Oregon State University, Corvallis, March 1990.

Metabolic interactions between photosynthesis, respiration and N assimilation. Cornell University, February 1990. **INVITED**

Cytochrome and alternate pathway respiration during transient N assimilation by N-limited Chlamydomonas reinhardtii. (Co-authored with H.G. Weger, M. Lin and A.R. Chadderton). American Society of Plant Physiologists, Toronto, August 1989.

Chlorophyll a fluorescence provides an accurate measure of total photosynthetic electron flow to CO₂ or NO₃⁻/NO₂⁻ under transient conditions. (Co-authored with J.J. Holmes and H.G. Weger). American Society of Plant Physiologists, Toronto, August 1989.

Amino and organic acid metabolism during anaerobic ammonium assimilation in a green alga. (Co-authored with G.C. Vanlerbergh). American Society of Plant Physiologists, Toronto, August 1989.

Interactions between photosynthesis respiration and N-assimilation. Advanced Course on Inorganic Nitrogen Metabolism. Seiano de Vico Equense (Naples), Italy, June 1989. **INVITED**

Chlorophyll a fluorescence predicts photosynthetic electron flow to CO₂ or NO₃⁻/NO₂⁻ under transient conditions. (Co-authored with J.J. Holmes and H.G. Weger). Photosynthesis and Crop Productivity. Connecticut Agricultural Research Station, April 1989.

Significance of mitochondrial respiration during photosynthesis: Measurement by short-term mass-spectrometry. (Co-authored with H.G. Weger). American Society of Limnology and Oceanography, San Francisco, December 1988. **INVITED**

Interactions between photosynthesis respiration and N-assimilation. Gordon Conference, August 1988. **INVITED**

Isozymes of pyruvate kinase in a green alga, Selenastrum minutum. (Co-authored with M. Lin and W.C. Plaxton). Canadian Society of Plant Physiologists, Reno, Nevada, July 1988.

Carbon isotope discrimination in photosynthesis and respiration during ammonium assimilation by a green alga. (Co-authored with R.D. Guy and G.C. Vanlerberghe). American Society of Plant Physiologists. Reno, Nevada, July 1988.

TCA cycle reductant supports nitrate and nitrite reduction during photosynthesis by the green alga, Selenastrum minutum. (Co-authored with H.G. Weger). American Society of Plant Physiologists. Reno, Nevada, July 1988.

RuBP limits carbon fixation during NH₃ assimilation by N-limited green algae. (Co-authored with I.R. Elrifi, J.J. Holmes and H.G. Weger). American Society of Plant Physiology, Reno, Nevada, July 1988.

Anaerobic TCA cycle activity during ammonium assimilation by a green alga. (Co-authored with G.C. Vanlerberghe, H.G. Weger and R.D. Guy). American Society of Plant Physiology, Reno, Nevada, July 1988.

RuBP limits carbon fixation during NH₃ assimilation by N-limited green algae. (Co-authored with I.R. Elrifi, J.J. Holmes and H.G. Weger). Canadian Society of Plant Physiologists, Guelph, Ontario, December 1987.

Isozymes of pyruvate kinase in a green alga, Selenastrum minutum. (Co-authored with M. Lin and W.C. Plaxton). Canadian Society of Plant Physiologists, Guelph, Ontario, December 1987.

TCA Cycle reductant supports nitrate and nitrite reduction during photosynthesis by the green alga, Selenastrum minutum. (Co-authored with H.G. Weger). Canadian Society of Plant Physiologists, Guelph, Ontario, December 1987.

A cyanophyte capable of fixing nitrogen under high levels of oxygen. (Co-authored with C.H. Prosseri). Canadian Society of Plant Physiologists, Guelph, Ontario, December 1987.

Interactions between photosynthesis, respiration and nitrogen assimilation. Canadian Society of Plant Physiologists, Kingston, June 1987. **INVITED**

Mass Spectrometry: description of a system for the study of photosynthesis and nitrogen assimilation in photosynthetic organisms. (Co-authored with D.G. Birch, D.T. Canvin and D.B. Layzell). Canadian Society of Plant Physiologists, Kingston, June 1987.

The relation between transport of inorganic carbon and the kinetics of photosynthesis in Synechococcus leopoliensis. (Co-authored with W.P. Mayo). Canadian Society of Plant Physiologists, Kingston, June 1987.

- Photosynthetic nitrogen assimilation increases dark respiration in the light. (Co-authored with H.G. Weger). Canadian Society of Plant Physiologists, Kingston, June 1987.
- Photosynthetic adaptation by cyanobacteria in response to exogenous dissolved inorganic carbon. (Co-authored with W.P. Mayo and T.G. Williams). Canadian Society of Plant Physiologists, Toronto, December 1986.
- The role of external carbonic anhydrase in inorganic carbon acquisition by Chlamydomonas reinhardtii at alkaline pH. (Co-authored with T.G. Williams). Canadian Society of Plant Physiologists, Toronto, December 1986.
- Mechanisms in phytoplankton resource competition. University of Michigan, Ann Arbor. 1986.
INVITED
- Physiological basis of phytoplankton resource competition. Laval University, Quebec. 1986.
INVITED
- Physiological basis of phytoplankton resource competition. University of Southern California, Los Angeles. 1986. **INVITED**
- N-induced photosynthetic suppression. University of Southern California, Los Angeles. 1986.
INVITED
- Growth rate dependent optimum ratios and their implication for competition, coexistence and stability in phytoplankton communities. American Society of Limnology and Oceanography, New Orleans, 1986.
- Constraints on theoretical P:Q values during transient nitrogen pulses. (Co-authored with I.R. Elrifi), American Society of Limnology and Oceanography, New Orleans, 1986.
- Carbon and reductant costs during N-induced photosynthetic suppression. (Co-authored with I.R. Elrifi). Canadian Society of Plant Physiologists, Ottawa, 1985.
- Changes in the CO₂ compensation point in response to N addition in the N-limited green alga, Selenastrum minutum. (Co-authored with D.G. Birch, and I.R. Elrifi). Canadian Society of Plant Physiologists, Ottawa, 1985.
- pH dependent variations in Photosynthesis, growth and carbonic anhydrase activity in Chlamydomonas reinhardtii. (Co-authored with T.G. Williams). Canadian Society of Plant Physiologists, Ottawa, 1985.
- The physiological basis of phytoplankton resource competition. The International Phycological Congress, Copenhagen, 1985. **INVITED**
- Processes in N induced photosynthetic suppression (Co-authored with I.R. Elrifi). American Society of Limnology and Oceanography, Minneapolis, MN, 1985.

- The effects of N source on the costs of N assimilation in Anabaena. (Co-authored with D.B. Layzell and I.R. Elrifi). Canadian Society of Plant Physiologists, Kingston, Ontario, 1984.
- The effects of N source on growth and N assimilation in Anabaena. (Co-authored with D.B. Layzell and I.R. Elrifi) Canadian Society of Plant Physiologists, Kingston, Ontario, 1984.
- Na⁺-dependent HCO₃-transport and photosynthesis by the cyanobacterium Synechococcus. (Co-authored with A.G. Miller and D.T. Canvin). Canadian Society of Plant Physiologists, Kingston, Ontario, 1984.
- The relationship between bicarbonate limited photosynthesis and growth in microalgae. International Conference on Bicarbonate Utiliation in Photosynthetic Organisms. Asilomar, California, 1984. **INVITED**
- Carbon and energy requirements associated with nitrogen fixation in the blue-green alga Anabaena flos-aquae. American Society of Plant Physiologists, Davis, California, 1984.
- Na⁺-dependent photosynthesis by the blue-green alga Synechococcus leopoliensis. (Co-authored with A.G. Miller and D.T. Canvin). American Society of Plant Physiologists, Davis, California, 1984.
- Kinetics of carbon limited growth and photosynthesis of Synechococcus sp. Forty-Seventh Annual Meeting American Society of Limnology and Oceanography, Vancouver, B.C., 1984.
- The role of sodium in photosynthesis in the cyanobacterium S. leopoliensis. (Co-authored with A.G. Miller and D.T. Canvin). Canadian Society of Microbiology Meetings, Kingston, Ontario, 1984.
- Regulation of nitrogen fixation in Anabaena flos-aquae. National Nitrogen Fixation Meetings, Ottawa, 1984. **INVITED**
- In vivo* nitrogenase regulation by ammonium and methylamine and the effect of L. methionine-DL-sulfoximine on ammonium transport in Anabaena flos-aquae. Canadian Society of Plant Physiologists, Winter Meetings, 1984.
- Phytoplankton photosynthetic responses to limiting nutrient addition. (Co-authored with I.R. Elrifi). American Society of Limnology and Oceanography, New Orleans, 1984. **INVITED**
- Carbon assimilation in A. nidulans grown in carbon regulated chemostats. (Co-authored with A.G. Miller and D.T. Canvin). 6th International Congress of Photosynthesis, Brussels, 1983.

- Carbon assimilation in A. nidulans grown in carbon regulated chemostats. (Co-authored with A.G. Miller and D.T. Canvin). International Symposium on Kinetics of Photosynthetic Carbon Metabolism in C₃ Plants, Tallon, Estonia.
- In vivo* nitrogenase regulation by ammonium and methylamine and the effect of L-methionine-DL-sulphoximine on ammonium transport in Anabaena flos-aquae. (Co-authored with S.A. Edie and D.T. Canvin). Fifth International Symposium on Nitrogen Fixation, 1983.
- Growth of Anacystis nidulans in carbon limited chemostats. (Co-authored with A.G. Miller and D.T. Canvin). American Society of Plant Physiologists, 1983.
- The cost of nitrogen assimilation in blue-green algae: A novel approach using chemostat culture. (Co-authored with S.A. Edie, D.B. Layzell and D.T. Canvin). Canadian Society of Plant Physiologists, 1983.
- Ammonium and nitrate induced photosynthetic suppression in nitrogen limited Dunaliella tertiolecta. Canadian Society of Plant Physiologists Winter Meetings. Ottawa, Ontario, 1982.
- The use of carbon limited chemostats to study HCO₃⁻ transport in Anacystis. (Co-authored with A.G. Miller and D.T. Canvin). Canadian Society of Plant Physiologists Winter Meetings, Ottawa, Ontario, 1982.
- Interaction between photosynthesis and ammonium uptake in marine phytoplankton. Forty-fifth Annual Meeting Amer. Soc. Limnol. Oceanogr. Raleigh, N.C., 1982.
- The manipulation of physical, chemical and biological factors to select species from natural phytoplankton communities. Symposium on Enclosed Marine Experimental Ecosystems, Sydney, B.C., 1980.
- Adaptations for nutrient uptake in response to desiccation in intertidal algae. Phycological Society of America, Vancouver, B.C., 1980.
- Limiting nutrient patchiness and its role in phytoplankton ecology. Forty-second annual meeting Amer. Soc. Limnol. Oceanogr., Stony Brook, N.Y., 1979.

PUBLISHED ABSTRACTS

- Waser, N.A.D., Z. Yu, K. Yin, B. Neilsen, P.J. Harrison, D.H. Turpin and S.E. Calvert. 1999. Nitrogen isotope fractionation during a simulated diatom spring bloom: importance of N starvation in controlling fractionation. Mar. Ecol. Prog. Series 179:291–296.

- Waser, N.A.D., K. Yin, Z. Yu, K. Tada, P.J. Harrison, D. H. Turpin and S.E. Calvert. 1998. Nitrogen isotope fractionation during nitrate, ammonium and urea uptake by marine diatoms and coccolithophores under various conditions of N availability. *Mar. Ecol. Prog. Series* 169:29–41.
- Rivoal, J., S. Trzos, D. A. Gage, W.C. Plaxton, and D.H. Turpin. 1997. Further characterization of a high molecular mass isoform of phosphoenol-pyruvate carboxylase from the green alga *Selenastrum minutum*. *Plant Physiol.* 114:(Suppl.).
- Jin, T., H.C. Huppe, and D.T. Turpin. 1997. In vitro reconstitution of the electron transport from NADPH to NO_2^- demonstrates that the OPPP can supply energy to NO_2^- assimilation in the dark. *Plant Physiol.* 114:(Suppl.).
- Dorais, M., Turpin, D.H. and A.D.M. Glass. 1997. Effects of potassium limitation on solute accumulation and carbon metabolism in *Hordeum vulgare* L: comparison with water stress. *Plant Physiol.* 114:(Suppl.).
- Fielding, A.S., D.H. Turpin, P.J. Harrison, S.E. Calvert, and R.D. Guy. 1997. The influence of the carbon concentrating mechanism on carbon stable isotope discrimination by marine phytoplankton. *Plant Physiol.* 114:(Suppl.).
- Moustgaard, J.R., D.H. Turpin and H.C. Huppe. 1997. Characterization of glucose-6-phosphate isoforms from NO_3^- grown *Chlamydomonas reinhardtii*. *Plant Physiol.* 114:(Suppl.).
- Huppe, H.C., L.K. McPhee and D.H. Turpin. 1997. Metabolic energy allocation in relation to the rate of NO_3^- assimilation: a role for reductive regulation in coordinating carbon metabolism in the algal chloroplast. *Plant Physiol.* 114:(Suppl.).
- Soole, K.L., D.H. Turpin, J.T. Wiskich. 1997. Inducement of external (DA)-NAD (P) H oxidation in beet mitochondria. *Plant Physiol.* 114:(Suppl.).
- Rivoal, J., W.C. Plaxton and D.H. Turpin. 1996. Purification and characterization of PEP carboxylase from the green alga *Chlamydomonas reinhardtii* *Plant Physiol.* 111:(Suppl.).
- Xue, X, D.A. Gauthier, D.H. Turpin and H.G. Weger. 1996 Interactions between photosynthesis and mitochondrial respiration in the green alga *Chlamydomonas reinhardtii*. *Plant Physiol.* 111:(Suppl.).
- Rivoal, J., R. Dunford, W.C. Plaxton, and D.H. Turpin. 1995. Purification and characterization of three PEP carboxylase isoforms from the green alga *Selenastrum minutum*. *Plant Physiol.* 108:(Suppl.).
- Gauthier, D.A. and D.H. Turpin, 1995. Interactions between inorganic phosphorus (P_i) assimilation with respiration and photosynthesis by a P_i - limited green alga. *Plant Physiol.* 108:(Suppl.).

- Huppe, H.C. and D.H. Turpin, 1995. Characterization of Glucose 6-phosphate dehydrogenase and its role in photosynthetic nitrate assimilation by N-limited algae. *Plant Physiol.* 108 (Suppl.).
- Knowles, V.L., S.G. McHugh, Z Hu, S. Falk, H. Huppe, D.H. Turpin, B.L. Miki, and W.C. Plaxton. 1995. Altered growth under limiting light of transgenic tobacco plants lacking leaf cytosolic pyruvate kinase. *Plant Physiol.* 108:(Suppl.).
- Huppe, H.C. and D.H. Turpin. 1994. Effect of nitrogen limitation and resupply on the glucose 6-phosphate dehydrogenase from Chlamydomonas reinhardtii. *Plant Physiol.* 105:(Suppl.).
- Dunford, R., Plaxton, W.C. and D.H. Turpin. 1994. Kinetic properties of PEP carboxylase are altered on ammonium resupply to N-limited cells of the green alga Selenastrum minutum. *Plant Physiol.* 105:(Suppl.).
- Wright, D.P. and D.H. Turpin. 1994. Effect of nitrogen deprivation and resupply on the glucose 6-phosphate dehydrogenase from barley root plastids. 1994. *Plant Physiol.*:105:(Suppl.).
- Dorais, M., Glass, A.D.M. and D.H. Turpin. 1994. Biophysical and biochemical effects of potassium in barley plants. *Plant Physiol.* 105:(Suppl.).
- Norman, E.G., Walton, A.B. and D.H. Turpin. 1994. Immediate activation of dark respiration in parsley in response to the PMG elicitor. *Plant Physiol.* 105:(Suppl.).
- Turpin, D.H. 1993. Metabolic physiology of C and N metabolism. *Plant Physiol.* 102:(Suppl.).
- Turpin, D.H., A. Walton and E.G. Norman, 1993. Global estimate of net annual carbon flow to phenylpropanoid metabolism. *Plant Physiol.* 102:(Suppl.).
- Holmes, J.J. and D.H. Turpin. 1993. Regulation of dark state transitions in the green alga Selenastrum minutum. *Plant Physiol.* 102:(Suppl.).
- Gauthier, D.A. and D.H. Turpin. 1993. The effects of phosphate-enrichment on the metabolism of the phosphate-limited green alga Selenastrum minutum. *Plant Physiol.* 102:(Suppl.).
- Huppe, H. C., T.J. Farr and D.H. Turpin. 1993. Evidence for redox regulation of the oxidative pentose phosphate pathway during photosynthetic nitrate assimilation in an N-limited green alga. *Plant Physiol.* 102:(Suppl.).
- Farr, T.J., H.C. Huppe and D.H. Turpin. 1993. The relationship between photosynthetic rate and the redox regulation of two key enzymes of carbon reduction and oxidation in a green alga. *Plant Physiol.* 102:(Suppl.).
- Oresnik, I.J., M. Fernando, S. Hunt, R. Smith, D.H. Turpin and D.B. Layzell. 1993. Role of adenylates in the O₂ regulation of N₂ fixation in soybean nodules. *Plant Physiol.* 102:(Suppl.).

- Sitland, T.D. and D.H. Turpin. 1993. Dissimilatory nitrate reduction can support anaerobic respiration in the N-limited green alga Selenastrum minutum. *Plant Physiol.* 102:(Suppl.).
- Smith, R.G., G. Vanlerberghe, M. Stitt and D.H. Turpin. 1989. Changes in carbon metabolism during N assimilation in a green alga. *Plant Physiol.* 89:(Suppl.) 9.
- Weger, H.G., M. Lin, A.R. Chadderton and D.H. Turpin. 1989. Cytochrome and alternate pathway respiration during transient N assimilation by N-limited Chlamydomonas reinhardtii. *Plant Physiol.* 89:(Suppl.) 19.
- Turpin, D.H., J.J. Holmes and H.G. Weger. 1989. Chlorophyll a fluorescence provides an accurate measure of total photosynthetic electron flow to CO₂ or NO₃⁻/NO₂⁻ under transient conditions. *Plant Physiol.* 89:(Suppl.) 40.
- Vanlerberghe, G.C. and D.H. Turpin. 1989. Amino and organic acid metabolism during anaerobic ammonium assimilation in a green alga. *Plant Physiol.* 89:(Suppl.) 77.
- Turpin, D.H. and H.G. Weger. 1988. Significance of mitochondrial respiration during photosynthesis: measurements by short-term mass spectrometry. *EOS* 69:1125.
- Min, L., D.H. Turpin and W.C. Plaxton. 1988. Isozymes of pyruvate kinase in a green alga, Selenastrum minutum. *Plant Physiol.* 86:(Suppl.) 62.
- Guy, R.D., G.C. Vanlerberghe and D.H. Turpin. 1988. Carbon isotope discrimination in photosynthesis and respiration during ammonium assimilation by a green alga. *Plant Physiol.* 86:(Suppl.) 71.
- Weger, H.G. and D.H. Turpin. 1988. TCA cycle reductant supports nitrate and nitrite reduction during photosynthesis by the green alga Selenastrum minutum. *Plant Physiol.* 86:(Suppl.) 72.
- Turpin, D.H., I.R. Elrifi, J.J. Holmes and H.G. Weger. 1988. RuBP limits carbon fixation during NH₃ assimilation by N-limited green algae. *Plant Physiol.* 86:(Suppl.) 104.
- Vanlerberghe, G.C., H.G. Weger, R.D. Guy and D.H. Turpin. 1988. Anaerobic TCA cycle activity during ammonium assimilation by a green alga. *Plant Physiol.* 86:(Suppl.) 125.
- Miller, A.G., D.H. Turpin and D.T. Canvin. 1984. Na⁺-dependent photosynthesis by the blue-green alga Synechococcus leopoliensis. *Plant Physiol.* 75:(Suppl.) 6.
- Turpin, D.H., D.B. Layzell and I.R. Elrifi. 1984. Carbon and energy requirements associated with nitrogen fixation in the blue-green alga Anabaena flos-aquae. *Plant Physiology.* 75:(Suppl.) 8.

Miller, A.G., D.H. Turpin and D.T. Canvin. 1983. Growth of A. nidulans in carbon limited chemostats. *Plant Physiol.* 72:(Suppl.) 80.

Thomas, T.E. and D.H. Turpin. 1980. Adaptations for nutrient uptake in response to desiccation in intertidal algae. *J. Phycol.* (Suppl.) Vol. 16.