

acknowledgements

The Manitoba Division of the Canadian Cancer Society and Manitoba Education, Citizenship and Youth gratefully acknowledges the contributions of the following individuals in the development of *Health and Physics: A Grade 12 Manitoba Physics Resource for Health and Radiation Physics*.

This resource, and its associated *Student Resource Guide*, were conceived and developed to assist students in achieving the learning outcomes for the “Medical Physics” topic in the Manitoba Grade 12 Physics curriculum. It provides a context for real-world applications of the fundamentals of radiation physics, with important connections to the health and well-being of the people of Manitoba.

Principal Writer

Tanis Thiessen Westgate Mennonite Collegiate, Winnipeg MB

Manitoba Division, Canadian Cancer Society

Mark McDonald Executive Director
Carolyn Trono Project Manager
Linda Venus Senior Director, Public Issues and Cancer Control
George Wurtak Director of Aboriginal Initiatives (until September '08)

Manitoba Education, Citizenship and Youth

John Murray Project Leader, Development Unit, Instruction, Curriculum and Assessment Branch, School Programs Division
Danièle Dubois-Jacques Conseillère pédagogiques en sciences de la nature, Bureau de l'éducation française, Éducation, Citoyenneté et Jeunesse
Aileen Najduch Director, Instruction, Curriculum and Assessment Branch, School Programs Division (until October '08)

Members of the Manitoba Pilot Phase Team for Health and Physics

Cliff Dann Dakota Collegiate, Louis Riel School Division
Brian Dentry Kildonan East Collegiate, River East-Transcona School Division
Greg Johnson Westwood Collegiate, St. James-Assiniboia School Division
Elizabeth Kozoriz Daniel McIntyre Collegiate, The Winnipeg School Division
Heather Marks St. John's Collegiate, The Winnipeg School Division
Gary Myden Hapnot Collegiate, Flin Flon School Division
Kim Rapko Teacher Candidate, The University of Winnipeg
Dr. Inessa Rozina Technical-Vocational High School, The Winnipeg School Division
Benita Truderung Whitemouth School, Sunrise School Division

Medical Physics Scientific Advisor

Dr. Daniel Rickey CancerCare Manitoba, Winnipeg MB

Physics Education Advisor

Don Metz, PhD Faculty of Education, The University of Winnipeg

Multimedia Development

Stephen C. Jones St. Boniface Research Centre, Winnipeg MB

Graphic Design and Production

Doug Coates Edge Advertising, Winnipeg MB
Evan Coates Edge Advertising, Winnipeg MB
Ed Brajczuk Blue Moon Graphics Inc., Winnipeg MB

French Translation Working Group

Traductions Freynet-Gagné Translations
Danièle Dubois-Jacques Science Consultant Bureau de l'éducation française

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MINISTER OF EDUCATION, CITIZENSHIP AND YOUTH

Room 168
Legislative Building
Winnipeg, Manitoba R3C 0V8
CANADA

To the Teachers of Manitoba:

It is with great pride that I announce the publication of *Health and Physics: A Grade 12 Manitoba Resource for Health and Radiation Physics* to support the teaching and learning experiences of your physics students. This is an important and timely resource to contextualize your approaches to this content area. It explores the safe and necessary applications of radiation to diagnostic imaging techniques, introduces the field of medical physics, and examines the treatment options used for various cancers. It constitutes the fruit of a long-standing and successful collaboration between the Manitoba Division of the Canadian Cancer Society and Manitoba Education, Citizenship and Youth (MECY).

Though great progress has been made in areas such as early detection and prevention strategies, there is an expectation that most Canadians will directly deal with cancer and/or its treatment among family members at some point. This is why having an education about the technologies involved in the fight against cancer will provide a firmer basis for healthcare decision-making down the road.

Manitoba students and their families are encouraged by the prospects of better detection and improved outcomes for cancer patients, and we believe that a sound science education in this area contributes to wider understanding of the complex field of cancer research, diagnosis and treatment. This partnership with the Canadian Cancer Society demonstrates a commitment to relevant, high-impact science education here in Manitoba. My hope is that this new resource will improve students' healthcare system awareness as it increases technical knowledge in applying science to vital human needs.

Sincerely,

A handwritten signature in blue ink, appearing to read 'P. Bjornson', with a long horizontal flourish extending to the right.

Honourable Peter Bjornson



Canadian Cancer Society
Société canadienne
du cancer

MANITOBA DIVISION

July 23, 2009

Dear Students and Teachers of Manitoba,

The Manitoba Division of the Canadian Cancer Society has been pleased to fund this interesting and informative curriculum guide in health physics - *Health and Physics – A Grade 12 Manitoba Physics Resource for Radiation and Health Physics* and its associated Student Resource Guide. The project has been a partnership and fruitful collaboration among many individuals and organizations, including: students and teachers of physics who assisted in the pilot phases, the Department of Education, Citizenship and Youth's science consultants, medical physics expertise from CancerCare Manitoba and the St. Boniface Hospital Research Centre, and our staff here in the Manitoba Division of the Canadian Cancer Society.

The Canadian Cancer Society, Manitoba Division allocated donor dollars to this project as a demonstration of its commitments to public education in the sciences and to the well-being of all Manitobans. Our mandate is to serve all Manitobans who are at risk of developing cancer as well as those with cancer. We invested in this project as a meaningful connection to young adults, with the conviction that informed citizens are stronger advocates for their own health and the health of their families.

We believe that the information in the physics resource material will be of interest to students and their parents as the information is an excellent reference guide to imaging technology that is critical to much of health care. Imaging and radiation physics is also a core part of the cancer patient experience.

We are proud to have been associated with this project, and hope that students, teachers and families will find the material informative and useful for their future.

Mark A. McDonald
Executive Director
Canadian Cancer Society, Manitoba Division

DIVISION OFFICE

193 Sherbrook Street
Winnipeg, Manitoba
R3C 2B7

Telephone: (204) 774-7483

Toll Free: 1-888-532-6982

Fax: (204) 774-7500

Email: info@mb.cancer.ca

President

Jack W. Murray

Executive Director

Mark A. McDonald

BRANDON OFFICE

415 First Street

Brandon, Manitoba

R7A 2W8

Telephone: (204) 571-2800

Toll Free: 1-888-857-6658

Fax: (204) 726-9403

Email: info.brandon@mb.cancer.ca

BUREAU DIVISIONNAIRE

193. rue Sherbrook

Winnipeg, Manitoba

R3C 2B7

Téléphone: (204) 774-7483

Sans Frais: 1-888-532-6982

Télécopieur: (204) 774-7500

Courriel: info@mb.cancer.ca

Président

Jack W. Murray

Directeur general

Mark A. McDonald

BUREAU DE BRANDON

415. rue First

Brandon, Manitoba

R7A 2W8

Téléphone: (204) 571-2800

Sans Frais: 1-888-857-6658

Télécopieur: (204) 726-9403

Courriel: info.brandon@mb.cancer.ca

Cancer Information Service

Service d'information

sur le cancer

1-888-939-3333

www.cancer.ca