



**ALBERTA INNOVATES – HEALTH SOLUTIONS  
INDEPENDENT INVESTIGATOR ANNUAL REPORT  
For the Calendar Year 2009**

Submit by May 15, 2010 to [grants.health@albertainnovates.ca](mailto:grants.health@albertainnovates.ca)

The information you share with us will be used for the purposes of planning, administering, and evaluating AHFMR's Grants & Awards programs. The collection of this information is authorized under Section 33(c) of Alberta's Freedom of Information and Protection of Privacy Act. Information that you provide to us will be protected by the provisions of this Act. If you have any questions about the collection or use of this information, please contact Dr. Jacques Magnan, President & CEO at (780) 423-5727 or [Jacques.magnan@albertainnovates.ca](mailto:Jacques.magnan@albertainnovates.ca).

NOTE: Your annual report must be submitted using this form.

LAST NAME, First Name & Initial	Academic Rank	AHFMR Award Held
Goodman, Karen J.	Associate Professor	independent Investigator

Complete University Mailing Address – Including Department, Faculty and Postal Code	Phone Number: 780-492-1889
7-142G Katz Building - Rexall Centre for Pharmacy & Health Katz Building 87 Ave – 114 St Edmonton, Alberta Canada T6G 2E1	Fax Number: 780-492-7593
	E-mail Address: karen.goodman@ualberta.ca

**SUPERVISED TRAINEES** Count only those trainees for whom you were the PRINCIPAL supervisor.

Number of Trainees (for all or part of 2009 only)	Summer Students: 0
	Graduate Students: 6
	Postdoctoral Fellows: 0

**PUBLICATIONS/ABSTRACTS/PATENTS** List ONLY those publications for the 2009 calendar year.

# of Publications: 8	# of Abstracts: 9
# of Patents: 0	# of Book Chapters: 0
Patent #: 0	Country of Ownership: 0
_____	_____
_____	_____

## PUBLICATION LIST

List papers published in the 2009 calendar year only (identify the journal in each case). Abstracts may be included but are to be listed separately. Submit either an electronic or printed copy of each paper.

Harzke AJ, Baillargeon JG, Goodman KJ, Pruitt SL. Liver cancer mortality among male prison inmates in Texas, 1989-2003. *Preventive Med* 48:588-92, 2009.

Phillips CV, Goodman KJ. Interpreting data in the face of competing explanations: assessing the hypothesis that observed spontaneous clearance of *Helicobacter pylori* was all measurement error. *Int J Epidemiol* 2009; doi: 10.1093/ije/dyp006.

Camp EA, Coker AL, Robboy SJ, Noller KL, Goodman KJ, Titus-Ernstoff LT, Hatch EE, Herbst AL, Troisi R, Kaufman RH, Adam E. Breast cancer screening in women exposed in utero to diethylstilbestrol. *J Women's Health* 18:547-52, 2009.

Tandon P, Goodman KJ, Ma MM, Wong WW, Mason A, Meeberg G, Bergsten D, Carbonneau M, Bain VG. A shorter duration of pre-transplant abstinence predicts problem drinking post liver transplantation. *Am J Gastroenterol*, 104:1700-6, 2009.

Harzke AJ, Baillargeon JG, Kelley MF, Diamond PM, Goodman KJ, Paar DP. HCV-related mortality among male prison inmates in Texas, 1994-2003. *Ann Epidemiol* 19:582-9, 2009.

Harzke AJ, Goodman KJ, Mullen PD, Baillargeon JG. Heterogeneity in hepatitis B virus (HBV) seroprevalence estimates from U.S. adult incarcerated populations. *Ann Epidemiol*, doi:10.1016/j.annepidem.2009.04.001, 2009.

Broussard CS, Goodman KJ, Phillips CV, Smith MA, Fischbach LA, Day RS, Aragaki CC. Antibiotics taken for other illnesses and spontaneous clearance of *Helicobacter pylori* infection in children. *Pharmacoepidemiol Drug Saf*, 18:722-9, 2009.

Azevedo NF, Huntington J, Goodman KJ. The Epidemiology of *Helicobacter pylori* and Public Health Implications. *Helicobacter* 2009;14(Suppl 1):1-7

## Abstracts

Cheung J, Morse A, Goodman KJ, van Zanten SV, Bailey R, Morse J, Fedorak R, Keelan M. "Prevalence of HP infection and antibiotic resistance in an Aboriginal population in Canada's arctic." *Gastroenterol* 136(suppl 1):A341, 2009

Cheung J, van Zanten S, Girgis S, Bailey R, Morse J, Fedorak R, Guzowski T, Millan M, Goodman K. "High prevalence of *Helicobacter pylori* and gastric pathology in an Aboriginal population in Canada's Arctic." *Gastroenterol* 136(suppl 1):A551, 2009

Cheung J, Goodman KJ, Bailey RJ, Girgis S, Fedorak RN, Morse J, Guzowski TZ, Millan MS, Veldhuyzen van Zanten S. "Randomized trial of oval cup versus alligator jaw biopsy forceps in ultrathin transnasal endoscopy." *Gastrointest Endosc* 69(suppl S):AB230, 2009

Cheung J, Goodman KJ, Bailey R, Fedorak R, Morse J, Millan M, Guzowski T, van Zanten SV. "A randomized trial of topical anesthesia with lidocaine alone vs lidocaine plus xylometazoline for unsedated ultrathin transnasal endoscopy." *Gastrointest Endosc* 69(suppl S):AB220, 2009

Goodman KJ, Munday R, Huntington J, Cheung J, van Zanten S, Corriveau A, CANHelp Working Group. Community-driven research on *Helicobacter pylori* infection in a Canadian Arctic hamlet. *Am J Epidemiol* 169:S35, 2009

Huntington J, Goodman KJ, Munday R, Gordon G, Fletcher C, CANHelp Working Group. Strategies for Communicating Health Research Findings to Members of an Arctic Aboriginal Community. *Am J Epidemiol* 169:S89, 2009

Phillips CV, Goodman KJ. Debunking three epistemic myths from introductory epidemiology. *Am J Epidemiol* 169:S90, 2009

Goodman KJ, Cheung J, Girgis S, Huntington J, Munday R, Fedorak R, van Zanten, CANHelp Working Group. Endoscopic and histopathologic characteristics of *H. pylori* infection in a Canadian Arctic hamlet. *Helicobacter* 14(4):316, 2009

Goodman KJ, Munday R, Huntington J, Archie B, Gordon G, van Zanten S, CANHelp Working Group. Demographics of *H. pylori* infection in a Canadian Arctic hamlet. *Helicobacter* 14(4):350, 2009

**HONORS AND AWARDS**

Include MAJOR invited talks (e.g. symposia, seminars at other universities) for the 2009 calendar year.

“Community-driven research on H. pylori Infection in Northern Canada,” Circumpolar H. pylori Conference, Yellowknife, July 10, 2009

“Update on H. pylori and Gastric Cancer in Northern Canada,” Circumpolar H. pylori Conference, Yellowknife, July 10, 2009

“Epidemiologists as Vectors of Community-driven Research on Infectious Diseases,” Spotlight Session Coordinator, Society for Epidemiologic Research, Anaheim, June 23-26 2009

Lecturer for doctoral seminar (2009-2010)

Department of Epidemiology, School of Public Health, University of California, Los Angeles

**COURSES TAUGHT**

Course Name & Number	Type (Lecture, Lab, Seminar)	Total Hours/Year

**UNIVERSITY COMMITTEES** List 2009 memberships only

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**OTHER PROFESSIONAL/SCHOLARLY ACTIVITIES**

List 2009 membership on editorial boards, grant panels, organizing committees for meetings/symposia, executive of scientific societies, etc.)

Executive Editor (2004-present), Epidemiologic Perspectives & Innovations (open-access, Biomed Central)

Journal Referee (1995-present, average of 6 manuscripts per year): Am J Epidemiol, Am J Gastroenterol; Am J Public Health, Cancer, Cancer Epidemiol Biomarkers Prev, Gastroenterology, Gut, Helicobacter, Int J Epidemiol, J Am College Nutr, JNCI, J Pediatrics, Lancet, NEJM, Pediatr Infectious Dis J, Trop Med Int Health, and others.

Epidemiology Advisor (2007-2009), Consensus Panel on H. pylori Guidelines, North American & European Societies for Pediatric Gastroenterology, Hepatology and Nutrition

Spotlight Session Moderator, Society for Epidemiologic Research (June 2009)

Abstract Reviews, European Helicobacter pylori Study Group Workshops (May 2009)

**PROGRESS REPORT**

On this page, summarize your research accomplishments during the past year, and relate these to the objectives outlined in your original application or previous year's report. Highlight your most significant achievements. Provide a brief statement of your research objectives for 2010.

#### Progress on the 5 Objectives Outlined in my Original Application

**Objective 1 – Collaborative Infrastructure Development.** The identity of the collaborative team I formed to start this research in 2007-2008 was solidified in 2009 by systematically referring to this team as "the Canadian North Helicobacter pylori (CANHelp) Working Group", and developing a CANHelp website, which will launch in 2010.

**Objective 2 – Establish Collaborative Links with other North American H. pylori Researchers.** I continued to be active in the Circumpolar H. pylori Group, led by epidemiologist Michael Bruce of the CDC Arctic Investigations Program in Anchorage, Alaska. This group is planning collaborative research across the circumpolar north, and includes researchers from Alaska, Canada, Greenland, and Russia. I also developed links with Canadian researchers working more generally on health in northern Aboriginal communities by collaborating on a NCE grant application with Kue Young of the University of Toronto for the establishment of an Institute for Northern Public Health. The LOI submitted in March 2009 was not successful, but my inclusion shows that my research program has gained respect across Canada.

**Objective 3 – Initial Research Project: the Aklavik H. pylori Project.** I directed the continuation of the survey and treatment components of this pilot. I also directed the presentation of initial findings: 1 first-authored published abstract presented orally at an international epidemiology meeting; 2 first-authored published abstracts presented (1 podium, 1 poster) at an international H. pylori workshop; 1 invited presentation at a circumpolar H. pylori conference; 1 oral presentation at an international circumpolar health meeting; 4 abstracts published and presented as posters at an international gastroenterology meeting by my trainee, AHFMR clinical research fellow Justin Cheung; 1 poster presentation by co-investigator Safwat Girgis at a national pathology meeting; 1 oral presentation by gastroenterology resident Amy Morse on the treatment component at an international circumpolar health meeting (see Objective 5 for presentations on the knowledge exchange component). This project has continued to receive media coverage, with either me or one of my trainees being interviewed in: a regional CBC radio interview, a Northern News article, and the filming of an in-depth feature news story to be aired in 2010 on the national CBC-French television program Decouverte. My research was also featured in AHFMR's Research News publication in spring 2009.

**Objective 4 - Expand Initial Research to other Northern Communities.** Following an August 2008 resolution of the Vuntut Gwitchin Council calling for my research team to investigate H. pylori infection in Old Crow, Yukon (after Old Crow community leaders approached me to find out if a project like the Aklavik project could take place in Old Crow), in 2009, I solidified links with Yukon partners, including Brendan Hanley, Yukon's Chief Officer of Health, and Jody Butler Walker and Norma Kassi, directors of the Arctic Health Research Network, Yukon. I was invited to present the progress on the development of this research at the Vuntut Gwitchin First Nation Annual General Assembly. I also directed the preparation and submission in November 2009 of an application to the CIHR Institute for Aboriginal People's Health for a Health Intervention Research grant (~\$450,000/year for 5 years) to expand my research to additional communities. For this application, my Yukon collaborators invited all of Yukon's Aboriginal communities to indicate interest in participating in this research, and we obtained written confirmation of interest from 6 communities, including Old Crow.

**Objective 5 – Policy Analysis and Knowledge Transfer.** My trainee, Janis Huntington continued her research project supported by a Northern Scientific Training Program Grant, with me as her supervisor, on development of knowledge exchange strategies in the Aklavik H. pylori Project. She published an abstract on her research and gave an oral presentation at an international epidemiology meeting, and 3 additional oral presentations (at a national epidemiology meeting, an international circumpolar health meeting, and an international public health meeting). After her presentation at the circumpolar health meeting, my trainee was invited to write a manuscript detailing this knowledge exchange work for a special edition of the Journal of Circumpolar Health that aimed to highlight the role of Canadian academic Institutions in circumpolar health research. Under my supervision, she prepared and delivered in Aklavik a community presentation on the Aklavik research to date. In collaboration with a filmmaker who is a UA anthropology PhD student, she completed a video documentary focused on demonstrating to the community how the research was carried out.

The overall development of my research program has been highly successful in terms of community support, funding support, respect within the scientific community, and dissemination in scientific and community venues.

**Plans for 2010.** I continue to wrap up the Aklavik fieldwork, as well as data analysis and presentation, and assessment of knowledge exchange strategies. I also continue to initiate research activities in Old Crow, Yukon, and seek funding for expanding my research to new communities in the Yukon, and, at the request of the Inuvialuit Regional Corporation, Inuvialuit communities in the Inuvialuit Settlement Region of the NWT. (In early 2010 I applied for and received a training grant of \$15,000 from the Nasivvik Complementary Funding program and a Health and Social Services grant of \$150,000 from ArcticNet to begin research in 2 new Inuvialuit communities in the NWT. I am also awaiting the decision on an application for a CIHR Operating Grant (~450,000/year for 5 years) I submitted in March 2010.

**LAY ABSTRACT**

In this space provide an abstract of your progress report, written in language suitable for transmission to the public. This information will be used to create or update your entry in the on-line AHFMR Experts Database (see <http://www.ahfmr.ab.ca/experts/search.php> ).

My research program addresses emerging concerns about health risks from H. pylori infection in Canada's northern communities. Some northern Aboriginal communities have identified H. pylori infection as a community health priority due to growing awareness of its health risks, and particularly, its link to stomach cancer, which occurs at elevated rates in northern Canada. Clinicians in some parts of northern Canada view H. pylori infection as a major clinical problem, given the dilemma of frequent demand for treatment accompanied by frequent treatment failure. To begin addressing these concerns, I organized a team of academic researchers from various disciplines (epidemiology, anthropology, policy sciences, microbiology, pathology, gastroenterology), clinicians from Alberta Health Services, and NWT health authorities and community leaders to conduct research aimed at answering questions posed by community members and their health care providers. As a starting point, the Aklavik H. pylori Project was initiated in Aklavik, NWT. This ongoing community-driven participatory research project has achieved a high level of participation and resulted in the formation of the Canadian North Helicobacter pylori (CANHelp) Working Group, which links academic researchers and Alberta Health Services with northern health authorities and community leaders, and the health technology industry. Public interest in the region has led to expansion of the CANHelp Working Group to include Yukon health officials and community organizations. Current goals are:

- To expand the research to additional communities in the NWT and Yukon to obtain representative data for informing regional public health strategies pertaining to H. pylori infection
- To conduct policy analysis to identify cost-effective H. pylori management strategies that account for ethics, economics, and local cultural concerns for northern communities
- To develop knowledge exchange strategies that help community members understand H. pylori health risks as well as currently available solutions and unsolved challenges for reducing these health risks

In 2009, my progress on the 5 objectives of my research program were as follows:

Objective 1 – Collaborative Infrastructure Development. The identity of the collaborative team I formed to start this research was solidified in 2009 by systematically referring to this team as "the Canadian North Helicobacter pylori (CANHelp) Working Group", and developing a CANHelp website, which will launch in 2010.

Objective 2 – Establish Collaborative Links with other North American H. pylori Researchers. I continued to be active in the Circumpolar H. pylori Group, led by epidemiologist Michael Bruce of the CDC Arctic Investigations Program in Anchorage, Alaska. I also developed links with Canadian researchers working more generally on health in northern Aboriginal communities by collaborating on large collaborative grant applications.

Objective 3 – Initial Research Project: the Aklavik H. pylori Project. I directed the continuation of the survey and treatment components of this pilot. I also directed the presentation of initial findings at various national and international scientific meetings with focuses on circumpolar health, public health, epidemiology, gastroenterology and pathology.

Objective 4 - Expand Initial Research to other Northern Communities. Following an August 2008 resolution of the Vuntut Gwitchin Council calling for my research team to investigate H. pylori infection in Old Crow, Yukon (after Old Crow community leaders approached me to find out if a project like the Aklavik project could take place in Old Crow), in 2009, I solidified links with Yukon partners, including Brendan Hanley, Chief Officer of Health, and Jody Butler Walker and Norma Kassi, directors of the Arctic Health Research Network, Yukon. I also directed the preparation and submission in November 2009 of an application to the CIHR Institute for Aboriginal People's Health for a Health Intervention Research grant (~\$450,000/year for 5 years) to expand my research to additional communities. For this application, my Yukon collaborators invited all of Yukon's Aboriginal communities to indicate interest in participating in this research, and we obtained written confirmation of interest from 6 communities, including Old Crow.

Objective 5 – Policy Analysis and Knowledge Transfer. My trainee, Janis Huntington continued her research project supported by a Northern Scientific Training Program Grant, with me as her supervisor, on development of knowledge exchange strategies in the Aklavik H. pylori Project. She published an abstract on her research and gave oral presentations at a national epidemiology meeting, and 3 international meetings. Under my supervision she prepared and delivered in Aklavik a community presentation on the Aklavik research to date. The research team also completed a video documentary focused on demonstrating to the community how the research was carried out.

The overall development of my research program has been highly successful in terms of community support, funding support, respect within the scientific community, and dissemination in scientific and community venues.

Plans for 2010. I continue to wrap up the Aklavik fieldwork, as well as data analysis and presentation, and assessment of knowledge exchange strategies. I also continue to initiate research activities in Old Crow, Yukon, and seek funding for expanding my research to new communities in the Yukon and the Inuvialuit Settlement Region of the NWT.

## Classification of Research: Use of MeSH Tree Numbers

MeSH (Medical Subject Headings) is the National Library of Medicine's controlled vocabulary thesaurus. Alberta Innovates – Health Solutions uses this thesaurus as a means of tracking the research activities of its researchers.

MeSH Tree Numbers are currently required information on the Independent Investigator Registration Form, Independent Investigator Application Form, and the Independent Investigator Annual Report. Alberta Innovates – Health Solutions requires the submission of the tree number for main headings, and not tree numbers from subheading qualifiers such as metabolism, therapeutics, etc.

Tree numbers may be found using a keyword description of your research. You can look at how the National Library of Medicine (NLM) has indexed your work by examining a search of your own publications.

PLEASE USE MeSH TREE NUMBERS THAT BEST DESCRIBE YOUR WORK; UP TO FIVE MeSH TREE NUMBERS MAY BE PROVIDED ON THIS ANNUAL REPORT.

You can use the following website to find MeSH Tree Numbers:

<http://www.nlm.nih.gov/mesh/MBrowser.html>

Alternatively, you may have access through your institution's library website.

MeSH TREE NUMBER
1. B03.440.500.550
2. H02.403.720
3. E05.318]
4. M01.060
5.

**RESEARCH GRANTS**

List all OPERATING grants held during all or part of the 2009 year. Please ensure that you provide complete details for each grant listed.

Funding Agency Name: **NIH - National Cancer Agency**

Type of Grant or Award: **Subaward from R01**

Full Period of Support for Grant or Award (start date/ end date): **2/1/07-1/31/12**

Project Title: **Obesity, H. pylori and Risk of Barrett's Esophagus -  
Prime Institution: Baylor College of Medicine, Houston, TX**

Your Role: PI  Co-PI  Co-Applicant

Funding for the 2009 year **only** (in Canadian funds):

*Your share of funding if there are co-awardees: \$4200*

*If you are not the Principal Investigator, list the PI's name: Hashem El-Serag*

Names of Other Investigators for Multi-Awardee Grants or Awards:

Funding Agency Name: **Canadian Association for Gastroenterology/CIHR/Astra-Zeneca**

Type of Grant or Award:

Full Period of Support for Grant or Award (start date/ end date): **04/01/2008 – 03/31/2010**

Project Title: **Characterization of Helicobacter pylori infection in the Northwest Territories**

Your Role: PI  Co-PI  Co-Applicant

Funding for the 2009 year **only** (in Canadian funds): **\$45000**

*Your share of funding if there are co-awardees:*

*If you are not the Principal Investigator, list the PI's name: Monika Keelan*

Names of Other Investigators for Multi-Awardee Grants or Awards:

Funding Agency Name: **AHFMR**

Type of Grant or Award: **Establishment Grant**

Full Period of Support for Grant or Award (start date/ end date): **07/1/2008 - 06/30/2010**

Project Title: **H. Pylori infection in Northwest Territories aboriginal communities**

Your Role: PI  Co-PI  Co-Applicant

Funding for the 2009 year **only** (in Canadian funds): **125,000**

*Your share of funding if there are co-awardees:*

*If you are not the Principal Investigator, list the PI's name:*

Names of Other Investigators for Multi-Awardee Grants or Awards:

**RESEARCH GRANTS**

List all OPERATING grants held during all or part of the 2009 year. Please ensure that you provide complete details for each grant listed.

Funding Agency Name: **Anisnabe Kekendazone-Ottawa NEAHR**

Type of Grant or Award: **Seed Grant**

Full Period of Support for Grant or Award (start date/ end date): **01/12/2009 - 01/12/2010**

Project Title: **The Aklavik H. pylori Project**

Your Role: PI  Co-PI  Co-Applicant

Funding for the 2009 year **only** (in Canadian funds): **25,000**

*Your share of funding if there are co-awardees:*

*If you are not the Principal Investigator, list the PI's name:*

Names of Other Investigators for Multi-Awardee Grants or Awards: **Christopher Fletcher, Carl Phillips, Sander van Zanten, Richard Fedorak, Justin Cheung, Hien Huynh, Diane Taylor, Robert Rennie, Safwat Girgis**

Funding Agency Name:

Type of Grant or Award:

Full Period of Support for Grant or Award (start date/ end date):

Project Title:

Your Role: PI  Co-PI  Co-Applicant

Funding for the 2009 year **only** (in Canadian funds):

*Your share of funding if there are co-awardees:*

*If you are not the Principal Investigator, list the PI's name:*

Names of Other Investigators for Multi-Awardee Grants or Awards:

Funding Agency Name:

Type of Grant or Award:

Full Period of Support for Grant or Award (start date/ end date):

Project Title:

Your Role: PI  Co-PI  Co-Applicant

Funding for the 2009 year **only** (in Canadian funds):

*Your share of funding if there are co-awardees:*

*If you are not the Principal Investigator, list the PI's name:*

Names of Other Investigators for Multi-Awardee Grants or Awards:



**RESEARCH GRANTS**

List all OPERATING grants held during all or part of the 2009 year. Please ensure that you provide complete details for each grant listed.

Funding Agency Name:

Type of Grant or Award:

Full Period of Support for Grant or Award (start date/ end date):

Project Title:

Your Role: PI  Co-PI  Co-Applicant

Funding for the 2009 year **only** (in Canadian funds):

*Your share of funding if there are co-awardees:*

*If you are not the Principal Investigator, list the PI's name:*

Names of Other Investigators for Multi-Awardee Grants or Awards:

Funding Agency Name:

Type of Grant or Award:

Full Period of Support for Grant or Award (start date/ end date):

Project Title:

Your Role: PI  Co-PI  Co-Applicant

Funding for the 2009 year **only** (in Canadian funds):

*Your share of funding if there are co-awardees:*

*If you are not the Principal Investigator, list the PI's name:*

Names of Other Investigators for Multi-Awardee Grants or Awards:

Funding Agency Name:

Type of Grant or Award:

Full Period of Support for Grant or Award (start date/ end date):

Project Title:

Your Role: PI  Co-PI  Co-Applicant

Funding for the 2009 year **only** (in Canadian funds):

*Your share of funding if there are co-awardees:*

*If you are not the Principal Investigator, list the PI's name:*

Names of Other Investigators for Multi-Awardee Grants or Awards: