The W.W. Hutchison Medal of the Geological Association of Canada

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"The W. W. Hutchison Medal of the Geological Association of Canada is awarded to a geoscientist who during the first decade or so of her/his career is judged to have made an outstanding accomplishment in research, development, or applications in their field. The recipient will undertake a lecture tour in Canada, visiting major centres, at the expense of the GAC. The medal is named after Dr. William W. Hutchison in recognition of his many contributions to the Geological Association of Canada and to Canadian and international geoscience." (GAC Council, May 2003)

William Watt Hutchison,
"Hutch" or "Bill" to his many friends
and colleagues in Canada and around
the world, died in the Ottawa General
Hospital, July 3, 1987, at the age of 52,
a victim of cancer. At the time of his
death, Bill Hutchison was Assistant
Deputy Minister (Earth Sciences) of
Energy Mines and Resources Canada,

President of the International Union of Geological Sciences, a Member, General Committee, International Council of Scientific Unions, and a Director, Circum-Pacific Council on Energy and Mineral Resources. His tragic and untimely death cut short a remarkable record of achievement in geology, in public service, and in visionary leadership of Canadian and international geoscience. However, many of the initiatives that he had launched or nurtured continued to generate important contributions to the unusual growth and development of the geological sciences, and to their integration with the geophysical sciences, in Canada and worldwide during the latter part of the twentieth century. While it is fitting that this legacy should be commemorated in the W.W. Hutchison Medal of the Geological Association of Canada, it is also unfortunate that many of the beneficiaries of that legacy are unaware of its significance, scope and magnitude. The following brief biographic sketch aims to address this.

Bill Hutchison came to Canada in 1957 with a B.Sc. (Honours, Geology) from Aberdeen University in Scotland, to do postgraduate work at the University of Toronto (Ph.D., 1962). He joined the Geological Survey of Canada in Vancouver in 1962 and was soon engaged, with James Roddick, Alec Baer, and others, in an ambitious and technologically challenging computer-supported reconnaissancemapping project. Helicopters and boats were used to study one of the largest unexplored regions in Canada - the Coast Mountains of B.C. This was part of a broader research program on the origin and evolution of granites in this segment of the circum-Pacific 'ring of fire'. It was also an opportunity for innovative experiments, with Jim Roddick, involving the application of computer technology in the storage, retrieval and processing of information based on geographically referenced geological field observations, rock specimens, and fossils. Among the scientific accomplishments of the Coast Mountains project were the discovery of "tadpole" granitic plutons, demonstrating the generation of granite

in deep root zones leading to bodily upward movement in the dilatant "heads"; and the discovery of the then youngest high temperature-high pressure metamorphic zones in the circum-Pacific. One of the most enduring products was a set of eight 1:250,000-scale geological map sheets, co-authored by "W.W. Hutchison". These maps cover a segment of the Coast Mountains that extends southward 500 km from the Alaska "panhandle" to near the north end of Vancouver Island.

"Hutch" had a passionate and enduring commitment to fostering enhanced communication among geoscientists, between geoscientists and policy makers, and between geoscientists and the general public. In the late 1960s, he was the driving force behind the transformation of the Vancouver Geological Discussion Group into the Cordilleran Section of the GAC. This was the first of several very successful GAC Divisions that brought the synergistic impact of the GAC into local geological communities within Canada. He also started the now famous annual GAC Cordilleran Section symposia, which preceded the world-class Cordilleran Roundup, an annual mineral-exploration oriented meeting and exposition organized by the British Columbia-Yukon Chamber of Mines. In 1970 he founded the GAC's national news magazine, Geolog, and for five years single-handedly compiled, edited, and processed this amazingly successful quarterly. It has served for more than thirty years as a unifying news portal, providing a communication medium and a sounding board for Canadian geoscientists. Bill Hutchison's leadership and communications talents soon became obvious within the GAC, and in 1973-1974, he served as the GAC's 26th President. This was a time of significant change and rejuvenation in the GAC. Among other things, it included the introduction of Geoscience Canada as an innovative and refreshing replacement for the venerable Proceedings of the Geological Association of Canada. In his "Message from the President" in the first issue, he described Geoscience Canada as more

broadly based, more topical, and responsive to issues, but stressed that "the underlying theme must be the science itself". In his GAC presidential address, "Le Défi Canadien", which surveyed the state of geology in Canada, he concluded that "a prime problem is that of communication". No one in Canadian geoscience has been more diligent and successful in addressing this problem than W. W. Hutchison.

Bill Hutchison had an extraordinary enthusiasm and capacity for leadership. In 1973, while serving as President of the GAC, he also began providing leadership to other organizations, in Canada, as a Director of the Canadian Geological Foundation and as a Member (and subsequently as Foreign Secretary) of the Canadian Geoscience Council (CGC); and internationally, as Chairman of COGEODATA, the Committee on Storage, Retrieval and Processing of Geological Data established by the International Union of Geological Sciences (IUGS). This latter appointment marked the beginning of more than a decade of major contributions from "Hutch" to the IUGS and to international geoscience in

His leadership and management abilities and his skills in handling, displaying and interpreting complex geological data led to his appointment in 1974 as Head of the GSC's newly established Data Systems Research Group in Ottawa. There, under the aegis of the Director-General's office, he was given responsibility for directing long-range data systems planning and development. He directed a research group committed to implementing systems that would help scientists compile syntheses more rapidly and effectively, particularly for those projects dealing with energy and mineral resources. The challenge was to analyze critical problems, design and evaluate alternative systems, and transfer responsibility once a system was fully operational. The work involved managing up to ten task groups, whose studies crossed traditional linemanagement boundaries. Under his direction, the Group demonstrated the feasibility of computer-assisted

cartography and designed and implemented a mineral deposit data system – CANMINDEX – that was adopted by Energy Mines and Resources Canada and some provincial agencies.

In 1978, William W. Hutchison was appointed Secretary-General of the International Union of Geological Sciences (IUGS), and, with support from the Geological Survey of Canada, the IUGS Secretariat was transferred to the GSC headquarters in Ottawa. Bill Hutchison's new responsibilities included formulating and implementing IUGS policies on behalf of the IUGS Council and Executive Committee, as well as managing the financial resources of the IUGS and its internal scientific activities, which included six commissions, six committees, and two major collaborative programs: the International Lithosphere Program, and the International Geological Correlation Programme. He also assumed responsibility for directing IUGS initiatives to explore new avenues of pure and/or applied research that would benefit from international cooperation in the geosciences, for inspiring and motivating talented research scientists from diverse cultural backgrounds to cooperate in the planning, design and implementation of new programs, and for negotiating contracts and seeking funds for scientific and training programs through presentations of briefs to UNESCO, the UN, world banks and national research organizations. Hutch addressed all of these challenges with his characteristic enthusiasm, energy and panache. Because recent growth in the IUGS was posing unprecedented challenges to effective communication both within the Union and between it and the international scientific community, the IUGS established a new quarterly news journal: "Episodes", with W. W. Hutchison as its founding Editor. "Episodes" replaced the IUGS "Geological Newsletter" as the prime vehicle for disseminating to the IUGS community news of activities undertaken by the Union and its affiliates. Under Bill Hutchison's leadership, it also aspired to a more "expanded role in conveying up-to-date

information on scientific concepts and developments" in a form that "could better serve the Union both as a communications and a public relations tool." Within a few years "Hutch", with the skillful assistance of his experienced and talented Managing Editor, Vera Lafferty, had transformed Episodes into an international geoscience news magazine linking all the member countries of the IUGS, and moreover, one that was particularly effective in "conveying up-to-date information on scientific concepts and developments" and news of IUGS activities to geoscientists in developing countries.

In 1980, Bill Hutchison received the Bancroft Award from the Royal Society of Canada for his leadership in fostering cooperation and communication in the geosciences in Canada and internationally. The citation with his award stated that: "Much of the credit for the sense of community that has grown up in Canadian geoscience over the past decade is due to the work and influence of W.W. Hutchison. In more recent years, some of his energies have been successfully shifted to the international sphere, where again he is building up a sense of rapport and cooperation."

1981 was a very eventful year for Bill Hutchison. In January, he became Director-General of the Geological Survey of Canada, and in August, as part of a reorganization within Energy, Mines, and Resources Canada in 1981, he was appointed Assistant Deputy Minister and given responsibility for the management of the Earth Sciences Sector of the Department. The Earth Sciences Sector consisted of the Surveys and Mapping Branch, the Geological Survey of Canada, the Earth Physics Branch, and the Polar Continental Shelf Project, and a small headquarters unit. He was responsible for ~2000 employees, some located in Ottawa, others at regional centres across the nation, from the Atlantic to the Pacific to the polar continental shelf in the Arctic. The role of the Earth Sciences Sector was to contribute to the formulation of overall policies and regulations of the Department and the government in general, and to act as an agent of implementation of specific

policy objectives. "Hutch" promptly launched reviews of existing Earth Sciences Sector activities and initiated a new strategic planning process. At his initiative, an Independent Industrial Advisory Committee on Earth Sciences was established to advise the Minister of Energy Mines and Resources on the activities of this Sector. The committee consisted of senior officers from petroleum, mining and surveying companies, most of whom were qualified professional geoscientists or engineers with present or past links to Canadian geoscience or surveyengineering professional organizations. The Advisory Committee met at regular intervals to review the strategic plans and program activities of the Earth Science Sector and to report to the Minister of State for Mines (and the Associate Deputy Minister and Deputy Minister of Energy Mines and Resources). Members of the Committee soon became quite familiar with the responsibilities and activities of the various components of the Earth Science Sector, and with the special challenges and opportunities that each component was facing.

The Independent Industrial Advisory Committee became a very important channel for communication between the Earth Sciences Sector and the Government of Canada as well as between industry and Energy, Mines and Resources Canada. It was particularly important during the period of major change that followed the electoral victory of the Progressive Conservative Party under the leadership of Brian Mulroney, because during that critical period, some members of the Advisory Committee communicated directly with Pat Carney, the new Minister of Energy, Mines and Resources Canada. The Advisory Committee was instrumental in the implementation of a number of initiatives that have had a major influence on the Earth Science Sector and on the growth and development of the Earth sciences in Canada. These include: Lithoprobe, Canadian membership in the Ocean Drilling Program (ODP), the continuation of the Polar Continental Shelf Project through the 1980s and 1990s, and also

the GSC's Frontier Geoscience Program, as well as its geoscience program to inform Canadian negotiations in bilateral offshore boundary disputes, both of which involved participation of scientists and engineers from academia and industry as well as federal government personnel. Without the Independent Industrial Advisory Committee the evolution of the Canadian Earth sciences during the latter part of the twentieth century would have been quite different.

In the 1980s many provincial and territorial geological survey organizations that were faced with severe financial cutbacks, or, in some cases extinction, were rejuvenated or saved by federal-provincial Mineral Development Agreements (MDAs). The MDAs included the establishment of new federal-provincial cooperative programs for the creation and dissemination of new geoscience information to stimulate mineral resource exploration and discovery. They provided opportunities to deploy existing geoscience expertise in underfunded provincial and territorial geoscience agencies. Bill Hutchison was convinced that Canada needed strong provincial and territorial geoscience agencies, and also close cooperation and integration between them and the federal Earth Science Sector. He worked diligently and effectively on the development and implementation of the MDAs. Some of the credit for the success of the MDAs, and for their impact on provincial and territorial geoscience agencies belongs to him.

"Hutch" had relinquished his responsibilities as Secretary-General of the IUGS in 1980, before he was appointed Director-General of the Geological Survey of Canada; however, he continued to be active in the IUGS and in other international scientific activities. In 1980, he became Chairman of the Board of Directors of the IUGS International Research Development Programme. This Programme, which he had established while IUGS Secretary-General, was responsible for developing new initiatives in international collaboration in geological research, and also new sources of financial support. In 1982 he was appointed by the International Council of Scientific Unions (ICSU) to serve as President of CODATA, the ICSU Committee on Data for Science and Technology. Also in 1982, he became a Director of the circum-Pacific Council on Energy and Mineral Resources. He was soon widely recognized for his contributions to the International Union of Geological Sciences, the International Council of Scientific Unions, and the circum-Pacific Council on Energy and Mineral Resources, and for his achievements as Assistant Deputy Minister of Energy Mines and Resources Canada. There was no surprise when, at the International Geological Congress in Moscow in 1984, W.W. Hutchison was unanimously elected President of the International Union of Geological Sciences (IUGS), or when he was subsequently made a Member of the General Committee of the International Council of Scientific Unions (ICSU). In these new roles Bill Hutchison managed to integrate advantageously his international scientific activities with his management responsibilities in the Government of Canada. He fostered Canadian participation in new international activities such as the development of Issue's International Geosphere-Biosphere Program on Global Change, global assessments of oil and gas resources, and the emerging interest in Earth system science. It is truly unfortunate that his growing record of outstanding contributions to the Earth sciences in Canada and internationally was cut short by his untimely death in 1987.

"Hutch" was particularly interested in promoting the professional growth of deserving, meritorious young scientists. One of his last wishes was to establish under IUGS auspices the Hutchison "Young Scientist" Foundation to support their participation at the quadrennial meetings of the International Geological Congress. The GAC's W.W. Hutchison Medal recognizes the achievements of outstanding young Canadian geoscientists and provides them with opportunities to present and discuss their research at major centres within Canada.

GEOSCIENCE CANADA

The terms of reference for the Medal adopted by the GAC Council in May 2003 are:

W.W. HUTCHISON MEDAL

- 1. The W.W. Hutchison Medal of the Geological Association of Canada is awarded to a geoscientist who, during the first decade or so of his/her career, is judged to have made an outstanding accomplishment in research, development, or applications in their field. The recipient will undertake a lecture tour in Canada, visiting major centres, at the expense of GAC. The medal is named after Dr. William W. Hutchison in recognition of his many contributions to the Geological Association of Canada and to Canadian and international geoscience.
- 2. A subcommittee shall be responsible for selecting a candidate from sponsored nominations and recommending same to Council for its approval. The Past President shall be ex-officio chair and shall appoint a committee of three others, none of whom shall be a nominator or nominee for the medal.
- 3. Nominations of individuals for the W.W. Hutchison Medal are invited from membership of the Association. Nominations should be signed by at least three sponsors and submitted to the GAC Past President. Individual nominations are valid for a period of three years. The nomination papers must include a completed nomination form (available on the GAC website or in hard copy from GAC headquarters), cover letter of up to 2 pages from the principal sponsor, a one-sentence citation, a 200-word citation, a curriculum vitae, and one-page letters of endorsement from the co-sponsors. Letters of endorsement will also be considered by the selection subcommittee.

Your financial support will help make this happen. The Canadian Geological Foundation, which is a registered Canadian charitable organization, will administer the endowment fund required to cover the costs of the medals and the lecture tours; it will provide donors with official receipts for income tax purposes. Cheques payable to the

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Please note that all donations to the endowment fund must be accompanied by a signed advisory from the donor that "this donation must be held by CGF for ten years or more". The Canada Customs and Revenue Agency (CCRA) requires that this intent be expressly stated by the donor if CGF is to be exempted from the normal annual granting requirements of a charitable organization, and thereby be able to retain the donations in perpetuity and grow the fund to a sustaining amount.

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