A Guide to the

Dr. A. T. H. Burness *fonds*

COLL - 019

Arranged & described by

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Dr. A. T. H. Burness (COLL-019)

Title: Dr. A. T. H. Burness *fonds*
Dates: 1960-1990
Extent: 18 cm of textual material

Biographical sketch:
Alfred Thomas Henry Burness (1934-1991), medical researcher and Professor of Molecular Virology, was born on 10 February 1934 in Birmingham, England, the son of Alfred Charles Burness and Ivy Ravenall. Dr. Burness was one of four children; he had two brothers, Ron and John Leslie, and a sister, Barbara (Lynam). On 25 April 1959, Dr. Burness married Brenda Woods at Liverpool, England, and they had two sons, Gary Paul and Bradley Miles.

Dr. Burness received his early education at the Smith Street Primary School and the George Dixon Grammar School in Birmingham. He went on to earn his PhD in Biochemistry at the University of Liverpool in 1959. Dr. Burness worked in Surrey from 1959 to 1962. He then moved to the United States and took up a postdoctoral fellowship at the University of California at Berkeley (1962-1963). After this he returned to Surrey until 1968, when Dr. and Mrs. Burness moved to White Plains, New York State. There Dr. Burness joined the Sloan-Kettering Institute for Cancer Research in New York (1968-1971). From 1971 to 1976, they lived in Stamford, Connecticut. In 1976, Dr. and Mrs. Burness left the United States and moved to Newfoundland, where Dr. Burness took up a position with the Faculty of Medicine, Memorial University of Newfoundland.

Dr. Burness was the recipient of many awards and honours. In 1983, he won the Medical Research Council of Canada Visiting Scientist Award, which enabled him to spend a year at the Australian National University in Canberra (1983-1984). In 1987, he won the Alberta Heritage Foundation Visiting Lecturer Award. In 1989, Dr. Burness shared the Dr. Albert R. Cox Research Award (a grant of $25,000 awarded for outstanding research at Memorial University) with Dr. Kanwal Richardson for their virus research.

While Dr. Burness was at Memorial University, his scientific work earned in excess of $850,000 in research funding and equipment support from the Medical Research Council, the National Cancer Institute of Canada and the Canadian Diabetes Association. Dr. Burness also published extensively: he wrote numerous articles, papers and books about his medical research specialty, virology.

Dr. Burness was a member of various scholarly societies: the American Society for Virology, the Society for General Microbiology (United Kingdom), the Royal Society of Chemistry (Britain), and the Biochemical Society (United Kingdom). In his spare time, Dr. Burness pursued interests in astronomy and photography.

When Dr. and Mrs. Burness came to Newfoundland they lived in Portugal Cove-St. Phillips, where Mrs. Burness still resides. At the age of 57, Dr. Burness died of cancer on

26 October 1991 at Portugal Cove-St. Phillips. The Dr. Alfred Burness Graduate Student Award was established after his death in honour of his contribution to medical education at Memorial.

Custodial history:
The papers of Dr. A.T.H. Burness were donated to the Faculty of Medicine Founders' Archive by Dr. Crellin, who had custody of the papers following the death of Dr. Burness. Dr. Crellin transferred the papers to the archive in June 2001.

Scope and content:
The *fonds* consists of publications and research notes by Dr. Burness, which were created during his work in the medical research profession, including his involvement with a variety of individuals and organizations in Newfoundland and abroad. The *fonds* consists of the following series:

1.0 Publications, 1962-1990
2.0 Research Notes, 1960-1974

Source of title:
Supplied title based on contents of the *fonds*

Provenance:
Burness, Alfred

Arrangement:
When the papers arrived at the archive, there was some degree of order present. Material had been organized chronologically. This formed the framework for further arrangement and description of the *fonds*.

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Location:
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Accruals:
No further accruals are expected.

Series and Sub-series Description

1.0 Publications, 1962-1990

1.01 Publication Material, 1962-1990

1.01.001 List of Publications, many of which were written by Dr. Burness

1.01.002 1) "Infective ribonucleic acid component of cells infected by encephalomyocarditis virus," Reprinted from *Nature*, by A.J.D. Bellett, A.T.H. Burness and F. Kingsley Sandars, Vol. 195, No. 4844, pp. 874-891 (London: Macmillan Journal Ltd., 1 September 1962)

2) "Intracellular sites of synthesis of encephalomyocarditis virus components on Krebs-2 ascites tumour cells," *The Journal of General Microbiology*, by A.J.D. Bellett and A.T.H. Burness, Vol. 30, pp. 131-140 (London: Society for General Microbiology, 1963)

3) "Use of kieselguhr to increase cell production for animal virus investigations," *Nature*, by A.T.H. Burness and Joyce Moss, Vol. 213, p. 833 (London: Macmillan Journal Ltd., 25 February1967)

4) "Separation of plaque-type variants of encephalomyocarditis virus by chromatography on calcium phosphate," *Journal of Virology*, by A.T.H. Burness, Vol. 1, No. 2, pp. 308-316 (Baltimore: American Society for Microbiology, April 1967)

5) "Ribonucleic acid content of encephalomyocarditis virus," *Journal of General Virology*, by A.T.H. Burness, Vol. 6, pp. 373-380 (London: Cambridge University Press for the Society for General Microbiology, 1970)

6) "Particle weight and other biophysical properties of encephalomyocarditis virus," *Journal of General Virology*, by A.T.H. Burness, Vol. 6, pp. 381-393 (London: Cambridge University Press for the Society for General Microbiology, 1970)

7) "Further studies on a purification procedure for encephalomyocarditis virus," *Journal of General Virology*, by A.T.H. Burness and Ingrid U. Pardoe, Vol. 12, pp. 187-190 (London: Cambridge University Press for the Society for General Microbiology, 1971)

8) "Evidence for the lack of glycoprotein in the encephalomyocarditis virus particle," *Journal of General Virology*, by A.T.H. Burness, Ingrid U. Pardoe and Sylvia M. Fox, Vol. 18, pp. 33-49 (London: Cambridge University Press for the Society for General Microbiology, 1973)

9) "The polypeptide composition of the encephalomyocarditis virus particle," *Journal of General Virology*, by A.T.H. Burness, Sylvia M. Fox and Ingrid U. Pardoe, Vol. 23, pp. 225-236

(London: Cambridge University Press for the Society for General Microbiology, 1974)

10) "Chromatographic studies on picornavirus capsid polypeptides," *Journal of General Virology*, by Ingrid U. Pardoe, A.T.H. Burness, F.W. Clothier and E.J. Stott, Vol. 27, pp. 385-389 (London: Cambridge University Press for the Society for General Microbiology, 1975)

11) "Overestimates of the size of poly(a) segments," *Biochemical and Biophysical Research Communications*, Alfred T.H. Burness, Ingrid U. Pardoe and Norma O. Goldstein, Vol. 67, No. 4, 1408-1414 (USA: Academic Press, Inc., 15 December 1975)

1.01.003

1) "Requirement of an adenylic acid-rich segment for the infectivity of encephalomyocarditis virus RNA," *Journal of General Virology*, by Norma O. Goldstein, Ingrid U. Pardoe and A.T.H. Burness, Vol. 31, pp. 271-276 (London: Cambridge University Press for the Society for General Microbiology, 1976)

2) "Chemical structure of attachment sites for viruses on human erythrocytes," Reprinted from *Nature*, by Bradley J. Enegren and Alfred T.H. Burness, Vol. 268, No. 5620, pp. 536-537 (London: Macmillan Journals Ltd., 11 August 1977)

3) "The attachment of encephalomyocarditis virus to erythrocytes from several animal species," *Virology*, Marilyn A. Angel and Alfred T. H. Burness, Vol. 83, pp. 428-432 (New York: Academic Press, 1977)

4) "The size and location of the poly(a) tract in EMC Virus RNA," *Journal of General Virology*, by A.T.H. Burness, Ingrid U. Pardoe, Ellen M. Duffy, R.B. Bhalla and Norma O. Goldstein, Vol. 34, pp. 331-345 (London: Cambridge University Press for the Society for General Microbiology, 1977)

5) "Notes: Polyamines in encephalomyocarditis virus," *Journal of Virology*, by Sarah L. Sheppard, Alfred T.H. Burness and Stephen M. Boyle, pp. 266-267 (Baltimore: American Society for Microbiology, April 1980)

6) "Preparation of erythrocyte receptors for viruses by affinity chromatography," *Journal of Virological Methods*, by Ingrid U. Pardoe and Alfred T.H. Burness, Vol. 1, pp. 285-298 (Elsevier/North-Holland Biomedical Press, 1980)

7) "Glycophorin and sialylated components as receptors for viruses," *Receptors and Recognition (Series B*), by A.T.H. Burness, pp. 65-84 (London: Chapman and Hall, 1981)

8) "The interaction of encephalomyocarditis virus with its erythrocyte receptor on affinity chromatography columns," *Journal of General Virology*, by Ingrid U. Pardoe and Alfred T.H. Burness, Vol. 57, pp. 239-243 (London: Cambridge University Press for the Society for General Microbiology, 1981)

9) "Effect of enzymes on the attachment of influenza and encephalomyocarditis viruses to erythrocytes," *Journal of General Virology*, by Alfred T.H. Burness and Ingrid U. Pardoe, Vol. 55, pp. 275-288 (London: Cambridge University Press for the Society for General Microbiology, 1981)

10) "A sialoglycopeptide from human erythrocytes with receptor-like properties for encephalomyocarditis and influenza viruses," *Journal of General Virology*, by Alfred T.H. Burness and Ingrid U. Pardoe, Vol. 64, pp. 1137-1148 (London: Cambridge University Press for the Society for General Microbiology, 1983)

1.01.004 "Chromatofocusing of sialoglycoproteins," *Journal of Chromatography*, by Alfred T.H. Burness and Ingrid U. Pardoe, Vol. 259 pp. 423-432 (Amsterdam: Elsevier Science Publishers B.V., 1983)

2) "Encephalomyocarditis virus attachment," *Virus Attachment and Entry into Cells*, by Graham P. Allaway, Ingrid U. Pardoe, Amir Tavakkol and Alfred T.H. Burness, pp. 116-125 (American Society for Microbiology, 1986)

3) "Aggregation of encephalomyocarditis virus induced by radio-iodination," *Journal of Virological Methods*, by Alfred T.H. Burness, Ingrid U. Pardoe and Graham P. Allaway Vol. 14, pp. 167-176 (Elsevier Science Publishers B.V.: 1986)

4) "Analysis of the bond between encephalomyocarditis virus and its human erythrocyte receptor by affinity chromatography on virus-sepharose columns," *Journal of General Virology*, by G.P. Allaway and A.T.H. Burness, Vol. 68, pp. 1849-1856 (London: Cambridge University Press for the Society for General Microbiology, 1987)

5) "Genetic stability of Ross River virus during epidemic spread in nonimmune humans," *Virology*, by A.T.H. Burness, I. Pardoe, S.G. Faragher, S. Vrati and L. Dalgarno, Vol.167, pp. 639-643 (New York: Academic Press, Inc., 1988)

6) "Evidence for a direct role for sialic acid in the attachment of encephalomyocarditis virus to human erythrocytes," Reprinted from *Biochemistry*, by Amir Tavakkol and Alfred T.H. Burness, Vol. 29, No. 47, 10684-10690 (American Chemical Society, 1990)

7) "The mechanism of production of multiple mRNAs for human glycophorin A," *Nucleic Acids Research*, by Jawed Hamid and Alfred T.H. Burness, Vol. 18, No. 19, pp. 5829-5836 (London; Washington: Information Retrieval Limited, 1990)

8) "Persistent infection of K562 cells by encephalomyocarditis virus," *Journal of Virology*, by Ingrid U. Pardoe, Kanwal K. Grewal, M. Pah Baldeh, Jawed Hamid and Alfred T.H. Burness, Vol. 64, No. 12, pp. 6040-6044 (Baltimore: American Society for Microbiology, December 1990)

2.0 Research Notes, 1960-1974

2.01 Notebooks, 1960-1974

2.01.001 A.T.H. Burness, Virus Research Group, MRC Labratories, Carshalton, 5 January 1960 – 1 November 1961

2.01.002 Notebook, 24 May 1972 – 3 December 1974

2.01.003 Notebook, 11 October 1962 – 17 October 1963

2.01.004 Book 2, 16 August 1967 – 1 May 1972 (contains 3 photographs, one of which is dated 13 December 1965, and one negative)

2.01.005 A.T.H. Burness, Virus Research Unit, MRC Labratories, Carshalton, Surrey, 7 November 1961 – 15 March 1965

2.01.006 Notebook, 12 May 1965 – 9 October 1967, plus a copy of the rules of the Society for General Microbiology

2.01.007 Binder, A.T. H. Burness, Virus Laboratory Room 403, University of California, Berkeley, Notes and Graphs, 1 August 1962 - 9 October 1963