Introduction


2. There is a huge literature on the NFB. See, for example, James, *Film as National Art*; Evans, *In the National Interest*; Jones, *Movies and Memoranda*; Jones, *The Best Butler in the Business*; and Druick, *Projecting Canada*. More generally on Canadian ephemeral films, see Druick and Cammaer, *Cinephemera*. Other references can be found in the chapters on the NFB’s involvement in *Challenge*.


7. Harrison, “In the Picture of Health.”


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10. Challenge (1950); The Fight (1951); The Outlaw Within (1951); Cancer (1951); Grant, The Challenge of Cancer; National Cancer Institute, A Teaching Guide: What We Know About Cancer (1950); Ce Que Nous Savons du Cancer (1950).

11. Hediger and Vondrau, “Introduction,” esp. p.10. For other histories of educational and training film see Acland and Wasson, Useful Cinema; Orgeron, Orgeron, and Streible, Learning with the Lights Off; Boon, Films of Fact. For an application of the idea of the utility film to health educational films see Bonah, Cantor, and Laukötter, Health Education Films.

12. Aitken, Film and Reform. More generally on Grierson, his approach, and influence see Evans, John Grierson and the National Film Board; Williams and Druick, The Grierson Effect; Winston, Claiming the Real; Winston, Claiming the Real II; Ellis, John Grierson.


Chapter 1

1. Patterson, The Dread Disease, chap 7; Robinson, Noble Conspirator, 2001; Mary Lasker Papers, National Library of Medicine.


4. Bernays, Biography of an Idea; Tye, The Father of Spin. More generally on the history of public relations see Tedlow, Keeping the Corporate Image, 27–51; Tedlow, New and Improved; Ewen, P.R.!


11. On the ACS film unit see “Adelaide Brewster is Cancer Victim.” On UPA and cancer see Cantor, Man Alive! (1952); Cantor, Inside Magoo (1960); Cantor, “Uncertain Enthusiasm”; Cantor, “Choosing to Live.”
13. For example, see Johnson and Little, Facing the Facts about Cancer, 1947. This was a revised version of an ACS educational leaflet, Little, The Fight on Cancer.
15. See, for example, Dallas, The Consumer and the Anti-Chain Taxes.
18. Transcripts of the first meeting of the National Advisory Cancer Council, November 9, 1937, National Archives Record Group 443, box 6, p.48.
23. US Congress, Senate Committee on Foreign Relations, Cancer Research, 180. For an article comparing industrial and cancer research and urging industrialists to become interested in the subject to increase life expectancy and so to ‘prolong man’s purchasing power,’ see Brinkley, “Industrial Research vs. Cancer Research,” 2, emphasis in original.


34. Marshino, “The Expanded Federal Cancer Program.”


38. Westchester Cancer Committee, *Detectives Wanted!* [2].


40. Westchester Cancer Committee, *Detectives Wanted!* [2]

41. Westchester Cancer Committee, *Detectives Wanted!* [5]

42. Westchester Cancer Committee, *Detectives Wanted!* [6]

43. Westchester Cancer Committee, *Detectives Wanted!* [6]

44. “Cancer Committee Opens Drive to Raise $40,000.”

45. “90,000 Letters Carry Appeal of County Cancer Committee.”

46. “Face the Facts about Cancer.”

47. See, for example, these pamphlets: American Cancer Society, *Suggestions on What to Teach About Cancer*; American Cancer Society, *Why Learn About Cancer*; American Cancer Society, *A Statement of Principles as a Guide to Cancer Education in the Schools*: Early editions of some of these are listed in the article “You Can Teach about Cancer.” See also Wells, “Science Teachers Join the Fight Against Cancer,” 145.

48. American Cancer Society et al., *Teaching about Cancer: Thoughts for School Administrators*.


50. On *From One Cell*, see also “Learning to Live” and “Next Step—Teacher Training.” A Spanish-language version was also released; see “Spanish-speaking Vets See ACS Films.”

51. See, for example, Moon, Mann, and Otto, *Modern Biology*, 571–72.

52. Rudolph, *Scientists in the Classroom*.


55. “Challenge: Science Against Cancer,” Elgin Theatre, Ottawa 3:00 p.m., Sunday 19th March. Under the distinguished Patronage of His Excellency the Governor-General,” produced by Information Services Division, Department of National Health and Welfare, c.1950, NCI archives, AR-4900-010785. On the Mental Mechanisms series see Brian, “‘The New Generation.’” The NFB films in the context of Canadian health education see Harrison, “In the Picture of Health”; one of the versions of Challenge is discussed on pp.151, 161. Beaulieu, “L’incursion de l’ONF dans la thérapie psychiatrique.” More generally, see Low, NFB Kids; Brian, “‘The New Generation.” For other Canadian published reports on the origins of this program see “New Educational Film”; Maurice, “Cancer Research in Pictures”; Lawrence, “Challenge: Science Against Cancer”; “Challenge! Science Against Cancer”; Ellsey, “What Science is Doing to Combat Cancer”; “Cancer: Health Education Film Shows Battle Being Waged.” Gilmour, “Cancer Battle Film Draws Top Praise”; “Unusual Film is Screened in Ottawa” (Evening Citizen); “Cancer Research Film is Studied”; “Unusual Film is Screened in Ottawa” (Ottawa Citizen); McLaughlin, “Films Reveal How Science Winning Fight Against Disease.”


58. Dallas Johnson to Ralph Foster, November 28, 1948, and December 27, 1948, NFB archives, Challenge Science Against Cancer, production file 02-130, vol. 1. The drafts and final application are in Ross McLean, Canadian Government Film Commissioner, “Proposal for a Joint project to Combine Facilities and the funds of the Responsible authorities in the United States and Canada in the production of an educational film to dramatize the story of cancer research in order to attract scientific students to the field,” c. December 1948, NFB archives, Challenge: Science Against Cancer, production file 02-130, vol. 1.

59. More generally on such concerns about a tension between control and research see David Cantor, “Uncertain Enthusiasm”.

60. MFI, AAMC “Application for Grant to Cancer Control Project,” received February 28, 1949, NCI archives, AR-4900–010785.


64. “Association of American Medical Colleges Opens Its Medical Film Unit.”

65. Morten Parker interview, March 26, 2008.


Chapter 2


5. For a showing in Canada of *The Reward of Courage*, the first cancer education movie produced by the ASCC, see Macdonald, “The History of Cancer Treatment in Nova Scotia.” On this film see Cantor, *Reward of Courage*.

6. Hayter, *An Element of Hope*, 105. A few trailers may also have been produced in Canada; see “Public Health Speech Delivered by the Honorable J. J. Uhrich, Minister of Public Health and Provincial Secretary in Saskatchewan.” Legislative Assembly, *Journals and Speeches*. In general on Saskatchewan cancer campaigns, see Shephard, “First in Fear and Dread.” A one-minute trailer produced by the CCS in April 1946 is mentioned in Jean Pierce to General Brock Chisholm, telegraph, March 6, 1946, Library and Archives Canada, National Health and Welfare, RG 29, volume 189, file 311-C1-29.


8. Cantor, “Uncertain Enthusiasm.”


22. Isabel Oliver to Jean E. Pierce, July 18, 1945, Library and Archives Canada, National Health and Welfare, RG 29, volume 189, file 311-C1-29.
25. On Canadian interest in health films see Harrison, “In the Picture of Health,” 100–120.
27. Evans, *In the National Interest*.
31. Quoted in Harrison, “In the Picture of Health,” 112.
32. Quoted in Harrison, “In the Picture of Health,” 112.
34. Jeff Hurley (director, Division of Information Services, DNHW) to Jean [E.] Pierce, July 25, 1945, Library and Archives Canada, National Health and Welfare, RG 29, volume 189, file 311-C1-29.

35. On the complex relationship between Canada and the British Empire see, for example, Buckner, *Canada and the British Empire*.


40. From 1939–1945, close to 80,000 men and women had died of cancer, compared to 38,834 killed or missing during the war. “National Cancer Institute of Canada.”

41. “National Cancer Institute of Canada,” 325.

42. “National Cancer Institute of Canada,” 325.


46. On alternative cancer medicine in Canada see Clow, *Negotiating Disease*.

47. “Proposed Educational Campaign for Canadian Cancer Society; Films, Film Strips & Stills,” January 17, 1947, Library and Archives Canada, National Health and Welfare, RG 29, volume 1180, file 311-C1-29 part 1, p.3.


51. Patterson, *The Dread Disease*, 175.
59. Cantor, “Uncertain Enthusiasm.”
60. Adolf Nichtenhauser to Louis J. Neff, March 22, 1944, Nichtenhauser Papers, MSC 277, box 4, folder “Cancer 1948.”
61. “Lieut.-Col. C. W. Gilchrist.”
62. “Maple Leaf Appears on German Streets.”
64. This point and the list of Canadian icons come from Harrison, “In the Picture of Health,” 113.
65. Cantor, “Uncertain Enthusiasm.”
70. Comments of Dr. Cameron, in “Minutes of the First Annual Meeting of the National Cancer Institute of Canada,” September 20, 1947, Library and Archives Canada, National Health and Welfare, RG 29, volume 1181, file 311-C1-32, part 1, p.16.
71. Motion moved by Dr. Hall, in “Minutes of the Interim Committee of the National Cancer Institute of Canada,” May 11, 1947, Library and Archives Canada, National Health and Welfare, RG 29, volume 1181, file 311-C1-32, part 1, p.11.
Notes


78. See Chapter 3 of this book.


Chapter 3

1. For biographical information on Foster see Pratley, “Close-Up on Ralph Foster”; “Sympathy for Chief”; Ralph Foster biographical file, NFB archives.

2. [Ralph Foster], memo, “The Part Played by the National Film Board of Canada in the Development of the National Film Board of Australia,” in Ralph Foster biographical file, NFB archives. See also Kuo, Migration Documentary Films.

3. Connolley, “Ralph Foster.”

4. Druick, Projecting Canada, 93–99, esp. 96.

5. An earlier, more controversial coproduction was The People Between (1947), produced for the United Nations Relief and Rehabilitation Agency.


30. McCurdy, *Space and the American Imagination*, chap. 2; O’Donnell, “Science Fiction Films.” See also Evans, *Celluloid Mushroom Clouds*. One of the first major space adventures, George Pal’s *Destination Moon*, was released in 1950. Loosely based on a Robert Heinlein story, it echoes Heinlein’s suspicion of government. When a government agency fails to launch a rocket (there is a suspicion of sabotage), a general and a scientist turn to an industrial aircraft magnate to finance a spaceship. As part of his sales pitch to potential investors the magnate notes that only American industry can do this, though the US government will foot the bill. There is also a film within a film, an industrial recruitment film starring Woody Woodpecker, who explains the principles
of rocketry and how easy it is to get to get to the moon. The (patriotic) financiers are persuaded, and there follows a race to build the rocket and get it into space.

32. Lederer, Subjected to Science; Beers, For the Prevention of Cruelty, chap. 6; Gaarder, Women and the Animal Rights Movement; Landsbury, The Old Brown Dog; Elston, “Women and Anti-Vivisection.”

Chapter 4

2. James, Film as National Art, 126–34.
3. On Gouzenko and the beginnings of the Cold War see Knight, How the Cold War Began; Dufour, “Eggheads’ and Espionage”; Whitaker and Marcuse, Cold War Canada.
5. For a survey of the problems of the NFB after Grierson, see Evans, In the National Interest, chap. 1; Jones, Movies and Memoranda, chap. 4.
6. On internationalism as an aspect of Canadian cultural life see Tippett, Making Culture, 180, 187.
8. More generally on internationalism in the NFB see Druick, Projecting Canada, chap. 4.
11. Probably Dr. Harry Eagle, the scientific director of the Research Branch and Dr. David E. Price (chief) or Dr. Ralph G. Meader (scientific director) of the Research Grants Branch.


23. Morten Parker interview, March 26, 2008.


29. It is unclear if this last statement is spoken by the reporter answering his own question, or by the scientist in answer to the reporter’s query.


51. Three copies of this version of the script are discussed in this section. Two are in the Morten Parker collection, both bound with a black hard cover embossed with the NFB logo. One is a clean copy of the script (hereafter Shooting script, Man Against Cancer [clean version], n.d, Morten Parker Papers); the other is heavily annotated, reordered for the purposes of filming, and was used by Parker during the planning and shooting of the live-action sequences (hereafter Shooting script, Man Against Cancer [annotated version], n.d., Morten Parker Papers). The third is another annotated copy in the NFB archives (hereafter: Shooting script, Man Against Cancer [annotated version], June 1949, NFB archives, Challenge: Science Against Cancer, production file 02-130, vol 2. In all of these, the film begins with a shot of a symbolic photo, mural, or bas-relief of an unspecified scientific subject. For the purposes of this discussion, I will refer to the NFB archives copy.
52. Shooting script, Man Against Cancer [annotated version], June 1949, NFB archives, Challenge: Science Against Cancer, production file 02-130, vol. 2.
54. An earlier cancer education film, Enemy X (1942), produced for the American Cancer Society, had previously used a similar device of a film within the film to persuade men to seek early detection and treatment for cancer. Cantor, “Uncertain Enthusiasm”; Cantor, “Choosing to Live.”


75. There are two copies of this version of the script. One is in the NCI archives (hereafter Shooting script, *Man Against Cancer*, NCI archives, AR-4900-010785). Another is in the NFB archives (hereafter Shooting script, *Man Against Cancer* (clean version), NFB archives, *Challenge: Science Against Cancer*, production file 02-130, vol. 2). For the purposes of this discussion, I will refer to the version in the NFB archives.


77. “*Challenge: Science Against Cancer*. Elgin Theatre, Ottawa, 3:00 p.m., Sunday, 19th March, Under the distinguished Patronage of His Excellency the Governor-General,”


80. For remembrances of Hundal and the South Asian community in Ottawa, see Bhandari, How to Be a Diplomat, 14; Dustoor, American Days, 129.

81. There are several versions of the commentary in the NFB files.

One version seems to date from the period when the film was called “Man Against Cancer” “Commentary. Man Against Cancer,” n.d., NFB archives, Challenge: Science Against Cancer, production file 02-130, vol. 2.

Two seem to be the versions of the commentary that Constant, Parker, and Dryer worked on and are both annotated. They have the same title (except for the punctuation), but one is lightly annotated, the other more heavily annotated:


A further version is a marked-up version of the commentary read by Massey: “Commentary. Challenge—Science Against Cancer,” February 6, 1950 (marked-up), NFB archives, Challenge: Science Against Cancer, production file 02-130, vol. 2.


Chapter 5

1. Morten Parker interview, February 1, 2008.


6. Jones, *Movies and Memoranda*, 76. The combination of animation with documentary was noticed by Peter Harcourt, who suggested that this affinity was perhaps what made the NFB documentary unique. “Animation, then, might be said to represent the more introspective aspect of filmmaking. . . . Documentary, on the other hand, is always altered by the reality it encounters. One has to go out and get it. But perhaps the fact that so many people at the Film Board have worked both in animation and in documentary explains to a degree the moral seriousness and introspective quality of so many Canadian documentary films.” Harcourt, “Some Relationships,” 153.
10. Biographical details from the NFB’s biographical file on Morten Parker.
11. Morten Parker interview, March 26, 2008; Ramsey, “Cherry, Evelyn Spice.”
13. Aitken, *Film and Reform*.
21. Aitken, *Film and Reform*.
23. Morten Parker interview, March 26, 2008.
30. Aitken, *Film and Reform*, 60.
34. Tchelitchew had designed for the ballet in 1930s and was part of a network of gay artists and cultural critics that included Lincoln Kirstein (1907–1996) and Parker Tyler (1904–1974), both of whom wrote extensively about him and his art. For Tchelitchew’s homoerotic drawings and paintings see Leddick, *The Homoerotic Art of Pavel Tchelitchev*.
36. Morten Parker interview, February 1, 2008.

Chapter 6

12. Colin Low interview, May 2, 2007. Karen Mazurkewich has a different story. She notes that Low and his colleague George Dunning took a three-month leave of absence from the NFB in 1949 to work on an adaptation of *The Adventures of Baron*
Munchausen. But the production, utilizing metal cutouts and imaginative imagery, proved too ambitious and the film had to be abandoned. Mazurkewich, Cartoon Capers.


17. Much of the biographical information comes from Randy Bazilauskas interview, March 10, 2008.

18. Huettner, Fundamentals of Comparative Embryology, xi, 117 (fig. 54), 137 (fig. 59), 150 (fig. 64), 236 (fig. 94), 324 (fig. 130), 350 (fig. 140), and 351 (fig. 141).

19. His films included The Diagnosis of Tuberculosis with an Improved Culture Medium, c. 1942 (film supervisor) and The Embryology of Human Behavior, 1950 (collaborator). See also American Association of Medical Colleges, Minutes of the Proceedings of the Sixtieth Annual Meeting, 30.


30. On the body as interstellar space see Petchesky, “Fetal Images”; Birke, Feminism and the Biological Body, chaps. 4, 8.


34. Colin Low interview, May 2, 2007. See also Low’s comments in Graham, *Canadian Film Technology*, 116.


51. Tyler, “Human Anatomy as the Expanding Universe,” 8. For other contemporary discussions and images of Tchelitchew see Kirstein, “The Interior Landscapes of Pavel Tchelitchew”; Tyler, “Tchelitchew’s World”; Kirstein, “The Position of Pavel Tchelitchew.” The last two were part of a special Tchelitchew issue of View—series 2, no. 2 (May 1942)—published before his interior landscapes, and several of his interior landscapes appeared on the covers of later issues. See, for example, the covers of the December 1943 issue (series 3, no. 4) and the Spring 1947 issue (series 6, no. 3). On View see Nessen, “Surrealism in Exile,” 218–341; Dimakopoulou, “Europe in America.”

52. For example, Head, I, reproduced on the cover of ART News 49, no. 9 (January 1951).

53. Kirstein, “The Interior Landscapes of Pavel Tchelitchew,” 52; see also Kirstein, Tchelitchev, 92.

54. Kirstein, “The Interior Landscapes of Pavel Tchelitchew,” 52; see also Kirstein, Tchelitchev, 92.


60. Callen, “Ideal Masculinities.” On the variety of portrayals of Apollo in the movies see Winkler, “Neo-Mythologism.”

61. However, in the completed film these suggestions of death and anatomy are counterbalance by the narration (which talks of the completeness of the body and is suggestive of the wonder of the various body systems and anatomy); by the music (which resolves into a calming harmony that the composer used to suggest completeness rather than death); and by the subsequent scene of the movie in which we are treated to a tour through the living functioning body.


63. Tyler, “Human Anatomy as the Expanding Universe,” 8.

64. Tyler, “Human Anatomy as the Expanding Universe,” 8. For other contemporary discussions and images of Tchelitchew see Kirstein, “The Interior Landscapes of Pavel Tchelitchew”; Tyler, “Tchelitchew’s World”; Kirstein, “The Position of Pavel Tchelitchew.” The last two were part of a special Tchelitchew issue of View—series 2, no. 2 (May 1942)—published before his interior landscapes, and several of his interior landscapes appeared on the covers of later issues. See, for example, the covers of the December 1943 issue (series 3, no. 4) and the Spring 1947 issue (series 6, no. 3). On View see Nessen, “Surrealism in Exile,” 218–341; Dimakopoulou, “Europe in America.”
Chapter 7

1. Telephone interview with Morten Parker, February 1, 2008.
2. On the history of tissue culture research see Landecker, *Culturing Life*; Wilson, *Tissue Culture in Science and Society*.
7. Clarke Daprato, biographical file, NFB archives; Graham, *Canadian Film Technology*, p.93.
8. Grant McLean, biographical file, NFB archives.
16. “Shooting Schedule . . . Toronto locations,” n.d., NFB archives, *Cancer (Theatrical), The Fight Against Cancer*, production file 16-001. Note that this document seems to have been misfiled.


20. The Rochester team included director, Morten Parker; cameraman, Grant McLean; assistant cameraman, Jean Roy; sound recordist, Clarke Daprato; (assistant?) soundman, Geoffrey Taylor; stills photographer, Christian Lund; business manager, Allen Stark; technical adviser, Maurice Constant; electrician, John Cote; and transportation, Douglas Bradley. For the correspondence on this travel see Ralph Foster to L. G. Chance (chief of Consular Division, Department of External Affairs, Ottawa), September 28, 1949; A. D. P. Heeney (undersecretary of state for External Affairs) to Ralph Foster, October 6, 1949; Harold Betts (NFB production secretary), memo, “Personnel Participating in CANCER VS SCIENCE shooting in Rochester, NY, October 8, 1949; Ralph Foster to Guy Glover, October 11 [1949]; Allen Stark to Harold Betts, October 17, 1949; A. D. P. Heeney to Ralph Foster, October 19, 1949; Ralph Foster to A. D. P. Heeney, October 21, 1949; Harold Betts to Guy Glover, October 21, [1949]; Harold Betts to Allen Stark, October 21, 1949; Harold Betts to Dallas Johnson, October 21, 1949; Harold Betts to Bernard V. Dryer, October 21, 1949; Harold Betts to David Ruhe, October 21, 1949; Harold Betts to Bernard V. Dryer, October 24, 1949; H. E. Betts to L. G. Chance, November 1, 1949, all in NFB archives, *Challenge: Science Against Cancer*, production file 02-130, vol. 1.


25. Morten Parker interview, March 26, 2008; “In Memoriam, Larry McCance;”; “Larry M’Cance.”


27. I am grateful to Lagrimas Ulanday, records archivist, University of Toronto Archives and Records Management Services, for newspaper clippings and photos of Rae from University of Toronto Archives (UTA), Department of Graduate Records, A73-0026/371 (53); UTA, Department of Information, A1978-0041/018 (03); and the UTA People File. On Rae and the chemistry department at the University of Toronto see Brook and McBryde, *Historical Distillates*, 117, 121, 123, 144, 170.
30. See the comments on one of the film’s consultants—Dr. H. B. Andervant—who noted that this method was not used in his lab. Norman Camberlin, memo, “The Scientist Against Cancer,” December 19, 1949, NFB archives, *Challenge: Science Against Cancer*, production file 02-130, vol. 1.
32. Lederer, “Hollywood and Human Experimentation.”
33. Morten Parker interview, March 26, 2008.
37. Morten Parker interview, March 26, 2008.
42. Shooting script, *Man Against Cancer* (clean version), Morten Parker Papers, p. 22.
43. Shooting script, *Man Against Cancer* (clean version), Morten Parker Papers, p. 22.
52. This description was included in both the June 1949 version of the shooting script and later versions. Shooting script, Man Against Cancer [annotated version], June 1949, p. 25; Shooting script, Man Against Cancer (clean version), p. 25. Both in NFB archives, Challenge: Science Against Cancer, production file 02-130, vol. 2.
59. Shooting script, Man Against Cancer [annotated version], Morten Parker Papers, p. 20.
Chapter 8

1. Morten Parker interview, March 26, 2008.
2. On Applebaum see Pitman, Louis Applebaum. For a list of movies for which Applebaum composed the music see McCarty, Film Composers in America, 26–8.
6. It was to comprise the following instruments: flute, clarinet, bass clarinet, cello, horn, trumpet, trombone, tuba, percussion, violin, violas, celeste, double bass, harp, piano, glockenspiel, timpani, piccolo, vibraphone, xylophone, tambourine, gong, wood block, and castanet. Louis Applebaum, Score for Challenge Science Against Cancer.
7. Invoice for CAN$1,684.12 from Camie Howard to the NFB, February 4, 1950.
11. Gorbman, Unheard Melodies.
12. Gorbman, Unheard Melodies.
13. Hayward, Off the Planet, especially the introduction. See also Bartkowiak, Sounds of the Future.
14. Berger, “Filming the Invisible,” 13. For a photograph of this photomicrography equipment see Graham, Canadian Film Technology, 159. No such sequence appears in the film, so it was probably deleted. However, it is possible that the reference is to a shot in sequence 3, where the viewer sees a tissue culture image of cancer cells through microscope.
15. Clarke Daprato, biographical file, NFB archives.
17. Participants included (from the US) Bernard Dryer, Dr. David Ruhe, Dr. Austin Deibert, Dr. Andervant [sic], Dr. Bazilaski [sic], Dr. Chalkley, and Dallas Johnson; (from Canada) Dr. O. H. Warwick (executive director of the Canadian Cancer Society) and Dr. Raymond Parker. NFB representatives were Ralph Foster, Guy Glover, Maurice Constant, and Morten Parker. The Department of Health and Welfare was represented by Dr. Cameron (Deputy Minister of Health); Dr. Ansley (Director of Health Services); C. W. Gilchrist and Norman Camberlin (Information Services Division). Norman Camberlin, memo, “The Scientist Against Cancer,” December 19, 1949, NFB archives, Challenge: Science Against Cancer, production file 02-130, vol. 1.


22. In the final cut three scientists are watching a slide of Mr. Davis’s tumor when he enters the doctor’s office. Mr. Davis’s body then dissolves into the animated sequence, which then fades back into Mr. Davis where he is told that his cancer is 90 percent curable. This would also seem to fit the description in Massey’s commentary. In the synopsis, however, Mr. Davis enters the doctor’s office only after the first animation sequence. It is the slide of his tumor that the scientists are viewing before his entry that expands and develops into the first animation sequence on normal and abnormal growth. Challenge: Science Against Cancer. Elgin Theatre, Ottawa 3.00 p.m., Sunday 19th March Under the distinguished Patronage of His Excellency the Governor-General’, Produced by Information Services Division, Department of National Health and Welfare, c.1950, p. 2. NCI archives, AR-4900-010785. Copy of the commentary and dialogue “Commentary. Challenge—Science Against Cancer,” February 6, 1950 (clean), NFB archives, Challenge: Science Against Cancer, production file 02-130, vol. 2, reel 4, p. 9.

23. Bernard V. Dryer and Ralph Foster to Dr. Warwick, Dr. Deibert, Dr. Ruhe, Mr. Gilchrist, and Mr. Glover, January 29, 1950. See also Bernard V. Dryer to Miss Kay Brown (Music Corporation of America), January 29, 1950, both in NFB archives, Challenge: Science Against Cancer, production file 02-130, vol. 1. According to one article, this fund was based in New York: “Challenge! Science Against Cancer,” 7.


25. Bernard V. Dryer and Ralph Foster to Dr. Warwick, Dr. Deibert, Dr. Ruhe, Mr. Gilchrist, and Mr. Glover, January 29, 1950, NFB archives, Challenge: Science Against Cancer, production file 02-130, vol. 1.


27. In the June 1949 shooting script, the normal and abnormal growth sequence (2) starts with the comment: “It begins with the fertilized egg . . . a single cell 1/2000 of an inch in size,” which appeared in the commentary and the film as: “It begins with a fertilized human egg—a single pinpoint fragment of life—a cell.” Shooting script, Man Against Cancer [annotated version], June 1949, NFB archives, Challenge: Science Against Cancer, production file 02-130, vol. 2, p. 5, and “Commentary, Challenge—Science Against Cancer,” NFB archives, Challenge: Science Against Cancer, production file

28. Bernard V. Dryer and Ralph Foster to Dr. Warwick, Dr. Deibert, Dr. Ruhe, Mr. Gilchrist, and Mr. Glover, January 29, 1950, NFB archives, Challenge: Science Against Cancer, production file 02-130, vol. 1.


31. Morten Parker interview, February 1, 2008.


35. In the heavily annotated version of the English commentary, this phrase from Ecclesiastes is crossed out, and the “houses of healing” introduction written in at lines 1 and 2: “Commentary. Challenge—Science Against Cancer,” n.d. (heavily annotated), NFB archives, Challenge: Science Against Cancer, production file 02-130, vol. 2.


Chapter 9


15. The records meetings of the UN Film Board at available in United Nations Archives and Records Section, DAG 12/3.1, box 2, series-0540-0057 and United Nations Archives and Records Section, DAG 12/3.1, box 3, series-0540-0058.
17. Biographical information on Grant from Melissa Ludtke (editor, *Nieman Reports*), email message to author, January 21, 2009; Fiore, “Lester Grant.”

Notes


49. Mr. Davis’s cancer cost CAN$50 for the reproduction—a moulage of carcinomatous lesions for lip and cheek. Apparently, this moulage could be applied either to the lip or cheek depending on the filmmakers’ preference. It was made by H. Louise Gordon of 104 Brentcliffe Road, Leaside, Ontario. Invoice from H. Louise Gordon (medical artist) to Morten Parker, NFB, Ottawa, October 27, 1949, NFB archives, *Challenge: Science Against Cancer*, production file 02-130, vol. 1 For a history of the moulage in medical teaching see Schnalke, *Diseases in Wax.*

Chapter 10


3. See, for example, Dallas Johnson to Hugh Jackson, March 17, 1950, NCI archives, no reference number, full text PDF 4780.4.
4. “Newspaperman Named.”


7. Blantz, George N. Shuster.


11. Johnson listed him as Radio City Corporation, but it seems more likely she meant Radio Corporation of America (RCA) which had created the National Broadcasting Company (NBC).


15. “Sympathy for Chief.”


21. Wright, “His Name High in Two Mastheads.”
26. Judson Hardy addition to memorandum from Jack Fletcher to Judson Harvey, February 15, 1950, NCI archives, no reference number, full text PDF 4780.4.
29. Huggins and Cameron are both mentioned as speakers in Zilpha C. Franklin to Hugh Jackson, February 21, 1950, NCI archives, no reference number, full text PDF 4780.4.
39. Bruno Gebhart to Dallas Johnson, March 15, 1950, NCI archives, AR-4900-010785. See also “Available—At Last!”
41. “Challenge: Science Against Cancer.”
42. Stillman K. Taylor (assistant librarian, Gary Public Library) to Dallas Johnson, April 18, 1950, NCI archives, AR-4900–010785.
43. Unknown correspondent from ACS, Minnesota Division, to Dallas Johnson, March 14, 1950, NCI archives, AR-4900–010785.

Chapter 11
1. Druick, Projecting Canada, 55–57.
2. Much of the following discussion is derived from my two interviews with Colin Low, February 16, 2007, and May 2, 2007. See also my interviews with Morten Parker, February 1, 2008, and March 26, 2008.
4. R. E. Dyer, “Establishment of Office of Scientific Reports,” September 29, 1948, NCI archives, AR-4809-000143. The office brought together a number of existing units within the NIH including the Editorial Section, Library Section, Translating Section, Color Reproduction Section, Photographic and Research Section, and the Medical Art and Scientific Exhibits Section, all of which predated the Office of Scientific Reports.
5. Wiegand, “John E. Fletcher.”
6. Don Reed to Jack Fletcher, March 17, 1950, NCI archives, no reference number, full text PDF 4780.4.
8. Don Reed to Jack Fletcher, March 17, 1950, NCI archives, no reference number, full text PDF 4780.4.
9. Don Reed to Jack Fletcher, March 17, 1950, NCI archives, no reference number, full text PDF 4780.4.

10. *Attitudes and Health* (1949); *Rest and Health* (1949).


21. American Association of Medical Colleges, Medical Audio-Visual Institute, “Selection of Medical Films for Use by the Department of State,” memo on *Challenge: Science Against Cancer*, c.1950–2, Nichtenhauser Papers, MSC277, box 20, folder reviews, R-S.

22. American Association of Medical Colleges, Medical Audio-Visual Institute, “Selection of Medical Films for Use by the Department of State Order No., 14547-(14)-52,” memo on *Challenge: Science Against Cancer*, March 27, 1952, Nichtenhauser Papers, MSC277, box 20, folder reviews, R-S.

23. American Association of Medical Colleges, Medical Audio-Visual Institute, “Selection of Medical Films for Use by the Department of State,” memo on *Challenge: Science Against Cancer*, c.1950–2, Nichtenhauser Papers, MSC277, box 20, folder reviews, R-S.

24. American Association of Medical Colleges, Medical Audio-Visual Institute, “Selection of Medical Films for Use by the Department of State,” memo on *Challenge: Science Against Cancer*, c.1950–2, Nichtenhauser Papers, MSC277, box 20, folder reviews, R-S.

25. American Association of Medical Colleges, Medical Audio-Visual Institute, “Selection of Medical Films for Use by the Department of State,” memo on *Challenge: Science Against Cancer*, c.1950–2, Nichtenhauser Papers, MSC277, box 20, folder reviews, R-S.
26. American Association of Medical Colleges, Medical Audio-Visual Institute, “Selection of Medical Films for Use by the Department of State,” memo on Challenge: Science Against Cancer, c.1950–2, Nichtenhauser Papers, MSC277, box 20, folder reviews, R-S.

27. American Association of Medical Colleges, Medical Audio-Visual Institute, “Selection of Medical Films for Use by the Department of State,” memo on Challenge: Science Against Cancer, c.1950–2, Nichtenhauser Papers, MSC277, box 20, folder reviews, R-S.

28. American Association of Medical Colleges, Medical Audio-Visual Institute, “Selection of Medical Films for Use by the Department of State,” memo on Challenge: Science Against Cancer, c.1950–2, Nichtenhauser Papers, MSC277, box 20, folder reviews, R-S.

29. American Association of Medical Colleges, Medical Audio-Visual Institute, “Selection of Medical Films for Use by the Department of State,” memo on Challenge: Science Against Cancer, c.1950–2, Nichtenhauser Papers, MSC277, box 20, folder reviews, R-S.

30. Erik Cripps and Marie L. Coleman, memo to Drs. Ruhe and Nichtenhauser, Medical Audio-Visual Institute, “Cancer Film Recommendations to State Department,” February 4, 1952, Nichtenhauser Papers, MSC277, box 19, folder reviews, C-D.

31. American Association of Medical Colleges, Medical Audio-Visual Institute, “Selection of Medical Films for Use by the Department of State Order No., 14547-(14)-52,” memo on Challenge: Science Against Cancer, March 27, 1952, Nichtenhauser Papers, MSC277, box 20, folder reviews, R-S.


34. Keller, Review of “Challenge: Science against Cancer.”


40. Glover, “Film.”

41. On Blakeslee, see Wilford, “Alton Blakeslee.”

42. Blakeslee, Polio Can be Conquered. For more on this pamphlet see Rogers, “Polio Can be Cured,” 91–93.

43. The two examples that Johnson provided were Blakeslee, “Pituitary Studies Aid Cancer Fight,” and Blakeslee, “Rat Glands Grown in Glass.” See NCI archives, AR-4900–010785.

45. There were some hopes of using ACTH in the treatment of leukemia, but this was not the focus of attention in Blakeslee’s article. On cortisone see Haller, “Stress, Cortison und Homöostase”; Cantor, “Cortisone and the Politics of Empire”; Cantor, “Cortisone and the Politics of Drama”; Marks, “Cortisone, 1949”; Gaudillière, “From Propaganda to Scientific Marketing”; Rasmussen, “Steroids in Arms”; Quirke, “Making British Cortisone.”

46. Blakeslee, “Rat Glands Grown in Glass.”
47. Blakeslee, “Pituitary Studies Aid Cancer Fight.”
52. For example see Blakeslee, “Story of Cancer Fight.”
55. For more descriptive accounts see “Film Launches International Campaign on Cancer Research.”
57. “Challenge Science Against Cancer,” See and Hear.
58. “You Can Teach About Cancer.” See also Wells, “Science Teachers Join the Fight Against Cancer.”
59. Erik Cripps and Marie L. Coleman, memo to Drs. Ruhe and Nichtenhauser, Medical Audio-Visual Institute, “Cancer Film Recommendations to State Department,” February 4, 1952, Nichtenhauser Papers, MSC277, box 19, folder reviews, C-D. For a fuller condemnation see American Association of Medical Colleges, Medical Audio-Visual Institute, “Selection of Medical Films for Use by the Department of State Order No., 14547-(14)-52,” memo on From One Cell, February 23, 1952, Nichtenhauser Papers, MSC277, box 19, folder reviews, C-D.
61. “Challenge: Science Against Cancer,” Film News. See also “$200,000 Film Program to Help Fight Cancer.”
65. “Real Progress on Cancer Cure.”
69. The photograph was taken by Christian Lund in February 1950 after the live-action shoots were over. It is labeled “Mr. Davis’ worries about growth on cheek, decides to see doctor,” NFB archives, publicity photos for Challenge, #51221.
73. Austin V. Deibert to David S. Ruhe, May 5, 1950, NFB archives, Challenge: Science Against Cancer, production file 02-130, vol. 1. The Bethesda–Chevy Chase High School yearbook for 1950 does not mention this film show, nor does the student newspaper. My thanks to Sean W. Bulson, Brian Baczkowski, and John Virden for providing me with access to the yearbook and student newsletter, February 6, 2008.

Chapter 12

4. For background see Hurewitz, Bohemian Los Angeles. On Ritchie see especially chap. 2.
16. The print run was 10,000 copies for distribution to among other groups science teachers, state health departments, Farm Service Agency regional offices, medical societies, public health educators, National Science Teachers Association, science departments of colleges, science writers, the NCI’s National Advisory Cancer Council, *New York Herald Tribune* and for limited distribution at the 5th International Cancer Congress in Paris, July 1950; The cost breakdown for the book, including travel: Layout, design, typography (US$275); Art (US$300); printing of 10,000 copies (US$3,900)—total US$4,475. Hugh Jackson, chief, Cancer Reports Section, “Program and Project Report: Public Information, Publications and Public Relations Activities. National Cancer Institute, July–December, 1950,” NCI archives, item number AR-5000–003912.
19. Albert Tannenbaum to Dallas Johnson, March 9, 1951, NCI archives, AR-5100-010682. Tannenbaum was director of the Cancer Research Department, Medical Research Institute, Michael Reese Hospital, Chicago.
20. Howard B. Owens Science Center, “Who Was Howard B. Owens?” The committee comprised Howard B. Owens, chairman (Hyattsville High School); Mary E. Adams, Virginia C. Carney, Mary L. Davis; Thaddeus Elder Jr. (assistant in chemistry, University of Maryland College Park in 1948-9); Lillian Guis; Helena J. Haines (Greenbelt High School); James E. Lauer; Lucille M. Richmond; Pauline E. Saunders; and Mary A. Thompson.
22. Teacher’s guide: Production, distribution and promotional plans: 10,000 copies to be printed, and single copies will be made on special mailing lists to all state health officers, Farm Service Agency regional offices, science teachers, and health educators. Hugh Jackson, chief, Cancer Reports Section, “Program and Project Report: Public Information, Publications and Public Relations Activities, National Cancer Institute, July–December, 1950,” NCI archives, Item Number AR-5000–003912.


32. Canadian research gets only one mention in the book in a chapter on environment and cancer (Grant, *The Challenge of Cancer*, 33), compared with the ten instances of the “National Cancer Institute” in the body of the book.


36. In the film some are identified by the narrator (such as the therapeutic technologies of X-rays, radium, and surgery, and research technologies such as [radio] isotopes, tissue culture), and others that were shown but not identified (Van Slyke apparatus, ultracentrifuge, Warburg apparatus, electron microscopes).


55. Norman Chamberlin to Dorothy McPherson, April 9, 1951, NFB archives, *What We Know About Cancer*, production file.


62. When the first announcements of its (impending) availability appeared (length: 30 to 50 frames) the specifications were: 35-mm black-and-white filmstrip, available with captions in English or French. “You Can Teach About Cancer,” 106.

63. Scheele and Hilleboe, *Cancer Control*, 41.

65. Ralph C. Ellis (theatrical distribution) to Don Mulholland and John Street, March 14, 1950, NFB archives: “Cancer (Theatrical), The Fight Against Cancer,” production file 16–001.

66. Ralph C. Ellis (Theatrical Distribution) to Don Mulholland and John Street, March 14, 1950, NFB archives, “Cancer (Theatrical), The Fight Against Cancer,” production file 16–001.


68. Guy Glover to David Ruhe, April 12, 1950, NFB archives, “Cancer (Theatrical), The Fight Against Cancer,” production file 16–001.


73. Invoice for CAN$/18 from 104 Brentcliffe Road, Leaside, Ontario, June 23, 1950, and Requisition (#B-16077) for Simulating Healed Carcinomatous Lesion for Cancer Film for Mrs. Louise Gordon, 104 Brentcliffe Road, Leaside, Ontario, July 17, 1950, NFB archives, “Cancer (Theatrical), The Fight Against Cancer,” production file 16-001. Note that the requisition includes the date April 18, 1950, shortly after production began.


75. The orders for these tickets, dated April 14, 1950, and April 17, 1950, are in NFB archives, “Cancer (Theatrical), The Fight Against Cancer,” production file 16–001.


82. Guy Glover to David Ruhe, April 12, 1950, NFB archives, “Cancer (Theatrical), The Fight Against Cancer,” production file 16–001.


87. On Drainie see the biography written by his daughter Bronwyn Drainie, Living the Part. See also Fairbridge, “Drainie, John Robert Roy (1916–1966).”


96. Margaret Herrick (executive director, Academy of Motion Picture Arts and Sciences) to Clinton Kenny (NIH) and Donald Mulholland (NFB), March 13, 1951, NFB archives, “Cancer (Theatrical), The Fight Against Cancer,” production file 16–001.

97. Margaret Herrick telegram to Donald Mulholland, March 22, 1951, NFB archives, “Cancer (Theatrical), The Fight Against Cancer,” production file 16–001.


100. O. H. Warwick (executive director of the CCS) to Mr. G. M. McClelland, February 22, 1951, and Don Mulholland, memo, “Record of Telephone Conversation
between Mulholland & Dr. David S. Ruhe,” February 23, 1951 (11:30 a.m.), NFB archives, *The Outlaw Within*, production file 02–170.


102. F. W. Rowse (Assistant ot the Director, Information Services Division, Department of Health and Welfare) to Mr. G. M. McClelland (liaison officer, NFB), February 27, 1951, NFB archives, *The Outlaw Within*, production file 02–170.

103. Don Mulholland, memo “Record of Telephone Conversation between Mulholland & Dr. David S. Ruhe,” February 23, 1951 (11:30 a.m.), NFB archives, *The Outlaw Within*, production file 02–170.


105. David S. Ruhe to W. Arthur Irwin, February 28, 1951, NFB archives, *The Outlaw Within*, production file 02-170. The absence of this credit had been noted by the US surgeon general, Leonard Scheele, earlier in February. The credit had been left out deliberately—perhaps with Ruhe’s agreement—and the NFB realized that if they got a distribution contract on *The Fight* that they would have to put in a small FSA credit. L. W. Chatwin to Guy Glover, February 7, 1951, NFB archives, “Cancer (Theatrical), *The Fight Against Cancer*,” production file 16–001.


110. Various versions of the commentary are in NFB archives, *The Outlaw Within*, production file 02-170. The final version is titled “Commentary for The Outlaw Within.”


113. Invoice from Max Ferguson, 65 Charles St. W., Apt. 4, Toronto, Ontario, dated March 13, 1951, for a total of CAN$99.30 (CAN$60 + expenses), NFB archives, *The Outlaw Within*, production file 02-170. An earlier invoice dated March 10, 1951, in the same file suggests that the recording took place on March 10. The expenses are lower, the total coming to CAN$90.75. Invoice from Gérard Arthur, 2080 Lincoln, Apt. 2, Montreal, for CAN$82.50 (CAN$60.00 + expenses), n.d. NFB archives, “Cancer,” production file 05–239.

114. Copy of this text in is NFB archives, *The Outlaw Within*, production file 02–170.
Notes

115. “Commentary for The Outlaw Within,” NFB archives, The Outlaw Within, production file 02-170, p. 4.
117 “Commentary for The Outlaw Within,” NFB archives, The Outlaw Within, production file 02-170, p. 4.
118. “Commentary for The Outlaw Within,” NFB archives, The Outlaw Within, production file 02-170, p. 4.

Conclusion

2. Donaghy, Grit, 130.
5. Benson, Space Odyssey, 71.
7. For a brief mention see Anderson and Langton, Health Principles, 413.
8. Patterson, The Dread Disease; Rettig, Cancer Crusade; Strickland, Politics, Science, and Dread Disease; Rushefsky, Making Cancer Policy.
9. The Cancer Reports Section at the NCI (the organization that would become the public education component of the NCI’s Office of Communications and Public Liaison [OCPL]), and the Office of Scientific Reports at NIH, later Scientific Reports Branch.
10. Arnold Schieman, biography file, NFB archives; “Gordon Petty CSC.”
11. Adler, “Reminiscences,” 1-2. Contrast these with the role of reporters in newspapers; see, for example, Aucoin, Evolution of American Investigative Journalism.